



CEO & Co-Founder, Pinscreen, Inc.

Associate Professor, Mohamed bin Zayed University of Artificial Intelligence

Director, MBZUAI Metaverse Center

Pinscreen, Inc.

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Home page <http://www.hao-li.com/>

Facebook <http://www.facebook.com/li.hao/>

PROFILE

Date of birth 17/01/1981
Place of birth Saarbrücken, Germany
Citizenship German
Languages German, French, English, and Mandarin Chinese (all fluent and no accents)

BIO

I am CEO and Co-Founder of Pinscreen, an LA-based startup that builds the world's most advanced AI-driven virtual avatars, as well as Associate Professor at the Mohamed bin Zayed University of Artificial Intelligence and Director of the MBZUAI Metaverse Center. Before that, I was a Distinguished Fellow of the Computer Vision Group at the University of California, Berkeley and Associate Professor of Computer Science at the University of Southern California, where I was also Director of the USC Institute for Creative Technologies. I work at the intersection between Computer Graphics, Computer Vision, and AI, with focus on photorealistic human digitization using deep learning and data-driven techniques. I'm known for my work on dynamic geometry processing, virtual avatar creation, facial performance capture, AI-driven 3D shape digitization, and deep fakes. My research has led to the Animoji technology in Apple's iPhone X, I worked on the digital reenactment of Paul Walker in the movie Furious 7, and my algorithms on deformable shape alignment have improved the radiation treatment for cancer patients all over the world. I have been keynote speaker at numerous major events, conferences, festivals, and universities, including the World Economic Forum (WEF) in Davos 2020 and Web Summit 2020. I was previously a visiting professor at Weta Digital, a research lead at Industrial Light & Magic / Lucasfilm, and a postdoctoral fellow at Columbia and Princeton Universities. I obtained my PhD at ETH Zurich and my MSc degree at the University of Karlsruhe (TH). I have been named one of the world's top 35 innovator under 35 by MIT Technology Review in 2013 and NextGen10: Innovators under 40 by C-Suite Quarterly in 2014. I received the Office of Naval Research (ONR) Young Investigator Award in 2018, the Google Faculty Research Award, the Okawa Foundation Research Grant, and the Andrew and Erna Viterbi Early Career Chair in 2015, the Swiss National Science Foundation fellowship in 2011, and the best paper award at SCA 2009. I am ranked #1 on Microsoft Academic in 2016 on the top 10 leaderboard in Computer Graphics for the past five years. I am member of the Global Future Councils of the World Economic Forum (WEF) and have been named to the DARPA Information Science and Technology (ISAT) Study Group in 2019. In 2020, my team and I also won the "Best in Show" award at SIGGRAPH Real-Time Live! I also serve as expert witness for IP litigation relating to Computer Vision and Graphics.

Google Scholar

Publication Impact (11/15/2023)

<https://scholar.google.com/citations?user=NFeigSoAAAAJ&hl=en>

total citations = 14,131; h-index = 54; i10-index = 94

EDUCATION

Ph. D., Computer Science

07/2006 - 11/2010

ETH Zurich, Department of Computer Science

- Thesis: *Animation Reconstruction of Deformable Surfaces*

Advisor: Prof. M. Pauly

M. Sc., Computer Science

10/2000 - 01/2006

Universität Karlsruhe (TH), Department of Computer Sciences

- Thesis: *Reconstruction of Colored Objects from Structured Illuminated Views*
Advisor: Prof. H. Prautzsch
- Major 1: Computer graphics and geometric modeling
- Major 2: Cryptography and security
- Minor: Differential and projective geometry

ERASMUS Student Exchange, Computer Science 10/2002 - 09/2003
Institut National Polytechnique de Grenoble, ENSIMAG

French-German High School Diploma 09/1992 - 05/1999
Lycée Franco-Allemand de Sarrebruck, Germany

POSITIONS

Pinscreen, Inc. 10/2015 - ongoing
CEO & Co-Founder

Mohamed bin Zayed University of Artificial Intelligence 05/2022 - ongoing
Associate Professor (with Tenure), Computer Vision Department

Hao Li Consulting, LLC 02/2021 - ongoing
Owner & Founder

University of California, Berkeley 11/2020 - 05/2022
Distinguished Fellow, Computer Vision Group

University of Southern California 05/2019 - 06/2020
Associate Professor (with Tenure), Computer Science Department

USC Institute for Creative Technologies 08/2016 - 06/2020
Director of the Vision and Graphics Lab

Weta Digital 06/2014 - 08/2014
Visiting Professor, Virtual Studio Group

University of Southern California 08/2013 - 05/2019
Assistant Professor, Andrew and Erna Viterbi Early Career Chair, Computer Science Department

Industrial Light & Magic, Lucasfilm Ltd. 04/2012 - 07/2013
Research Lead, R&D Group

Columbia University 04/2011 - 03/2012
Postdoctoral Fellow, Columbia Computer Graphics Group

Princeton University 04/2011 - 03/2012
Visiting Postdoctoral Researcher, Princeton Computer Graphics Group

École Polytechnique Fédérale de Lausanne 02/2010 - 04/2011
Visiting and Postdoctoral Researcher, Computer Graphics and Geometry Laboratory

Industrial Light & Magic, Lucasfilm Ltd. 07/2009 - 10/2009
Research Intern, R&D Group

Stanford University 07/2008 - 09/2008
Visiting Researcher, Geometric Computing Group

ETH Zurich 07/2006 - 11/2010
Research Assistant, Applied Geometry Group

National University of Singapore 01/2006 - 07/2006
Visiting Research Scholar, Centre for Information Mining and Extraction

TEACHING

Lecturer

Mohamed bin Zayed University of Artificial Intelligence

- CV 804: 3D Rendering and Geometry Processing (Lecture) SS 2024
- CV 802: Advanced 3D Computer Vision (Lecture) FS 2023
- CV 702: 3D Geometry for Computer Vision (Lecture) SS 2023

University of Southern California, Computer Science Department

- CSCI 621: Digital Geometry Processing (Lecture) SS 2017, SS 2018, and SS 2019
- CSCI 420: Computer Graphics (Lecture) FS 2014, FS 2015, FS 2017, and FS 2018
- CSCI 599: Digital Geometry Processing (Lecture) SS 2014 and SS 2015

Instructor/Host

Mohamed Bin Zayed University of Artificial Intelligence

- MEP05: MBZUAI Executive Program: The Future of Robotics SS 2023
- AI For Leadership: Computer Vision & Metaverse, SS 2024
- AI For Leadership: Metaverse, FS 2023
- AI For Leadership: Computer Vision, Metaverse, Robotics & Autonomous Driving, SS 2023
- AI For Leadership: Deep Learning, Computer Vision, NLP & Metaverse, Cohort 2, FS 2022
- AI For Leadership: Deep Learning, Computer Vision, NLP & Metaverse, Cohort 1, FS 2022
- MEP05: MBZUAI Executive Program: The Future of Robotics FS 2022

Guest Lecturer

University of Southern California, Computer Science Department

- QBIO 105: Introduction to Quantitative Biology Seminar SS 2020 and SS 2024
- CSCI 576: Multimedia Systems Design (Lecture) FS 2016
- EE 598: Electrical Engineering Research Seminar (Lecture) SS 2016
- CSCI 697: Seminar in Computer Science Research (Lecture) FS 2015 and FS 2017
- CSCI 109: Introduction to Computing (Lecture) SS 2014 and FS 2015
- CSCI 597: Seminar in Computer Science Research (Lecture) FS 2013
- ENGR 102: Freshmen Academies (Lecture) FS 2013

Stanford University, Computer Science Department

- CS148: Introduction to Computer Graphics & Imaging (Lecture) 2012

Columbia University, Computer Science Department

- Computer Graphics (Lecture) 2011

Teaching Assistant

École Polytechnique Fédérale de Lausanne, School of Computer and Communication Sciences

- Digital 3D Geometry Processing (Lecture) 2010
- Computer Graphics (Lecture) 2010

ETH Zurich, Department of Computer Science

- Surface Representation and Geometric Modeling (Lecture) 2007, 2008, and 2009
- Introduction to Computer Graphics (Lecture) 2006, 2007, 2008, and 2009
- Advanced Topics in Computer Graphics (Seminar) 2006 and 2007
- Geometric Computing (Seminar) 2008

MENTORING

Supervision

Mohamed Bin Zayed University of Artificial Intelligence, Computer Vision Department

- | | |
|---|-------------------|
| • Phong Tran, PhD Student | 08/2022 - ongoing |
| • Long-Nhat Ho, PhD Student | 08/2022 - ongoing |
| • Zhenhui Lin, MSc Student | 10/2022 - ongoing |
| • Yufei Zhang, MSc Student | 10/2022 - ongoing |
| • Youssef Hamed Sayed Mahmoud Sharaf, MSc Student | 10/2022 - ongoing |

• Kane Lindsay, MSc Student	10/2022 - ongoing
• Cong Cao, MSc Student	10/2022 - ongoing
• Hawau Toyin, MSc Student	10/2022 - ongoing
• Leena Ali Faisal Salem Bin Kuwair, MSc Student	10/2022 - ongoing
• Ariana Michelle Bermudez Venegas, MSc Student	10/2022 - 05/2023
• Maksym Bekuzarov, MSc Student	10/2022 - 05/2023
• Maksat Kengeskanov, MSc Student	10/2022 - 05/2023
• Steven Phong Hoang, MSc Student	06/2022 - 05/2023
• Valeriy Rotan, BSc Student (exchange student, UC Berkeley)	06/2022 - 01/2023
University of California, Berkeley, Computer Vision Group	
• Ruilong Li, PhD Student (Co-Supervised with Angjoo Kanazawa)	08/2021 - 05/2022
• Alex Yu, BSc Student	01/2021 - 05/2022
• Divi Schmidt, BSc Student	06/2021 - 05/2022
• Sarthak Kamat, BSc Student	06/2021 - 05/2022
• Chenyue Cai, BSc Student	06/2021 - 05/2022
University of Southern California, Computer Science Department	
• Jiaman Li, PhD Student	09/2019 - 08/2021
• Ruilong Li, PhD Student	09/2019 - 08/2021
• Pengda Xiang, PhD Student	09/2018 - 08/2021
• Sitao Xiang, PhD Student	09/2016 - 08/2021
• Zimo Li, PhD Student	09/2016 - 08/2021
• Shichen Liu, PhD Student	09/2018 - 07/2021
• Zhengfei Kuang, PhD Student	09/2019 - 11/2020
• Tianye Li, PhD Student (MSc in 2015)	11/2015 - 08/2021
• Kyle Olszewski, PhD Student (PhD defense in 10/2020)	09/2014 - 11/2020
• Zeng Huang, PhD Student (PhD defense in 08/2020)	09/2016 - 08/2020
• Zhou Yi, PhD Student (PhD defense in 03/2020)	09/2016 - 05/2020
• Shunsuke Saito, PhD Student (PhD defense in 12/2019)	09/2015 - 05/2020
• Lingyu Wei, PhD Student (PhD defense in 03/2018)	09/2014 - 05/2018
• Liwen Hu, PhD Student (MSc in 2013 and PhD defense in 11/2018)	09/2014 - 05/2019
• Nitika Aggarwal, MSc Student	01/2014 - 05/2014
• Ronald Yu, MSc Student	10/2016 - 05/2018
• Carrie Sun, BSc Student	01/2014 - 05/2014
• Lizhi Fan, BSc Student	01/2015 - 05/2015
• Natalie Monger, BSc Student	09/2016 - 05/2017
• Dr. Chongyang Ma, Postdoctoral Researcher	09/2013 - 06/2015
USC Institute for Creative Technologies, Vision and Graphics Lab	
• Kathleen Haase, Special Projects Manager	06/2016 - 06/2020
• Yajie Zhao, Researcher Associate	10/2017 - 06/2020
• Mingming He, Postdoctoral Researcher	12/2018 - 06/2020
• Loc Huynh, PhD Student	08/2017 - 06/2020
• Karl Bladin, Research Programmer	08/2017 - 06/2020
• Pratusha Prasad, Research Programmer (MSc in 2016)	06/2016 - 06/2020
• Xinglei Ren, Research Programmer (MSc in 2017)	04/2017 - 06/2020
• Bipin Kishore, Research Programmer (MSc in 2017)	04/2017 - 06/2020
• Chinmay Chinara, Research Programmer (MSc in 2018)	05/2018 - 06/2020
• Aakash Shanbhag, Research Programmer (MSc in 2018)	05/2018 - 06/2020
• Marcel Ramos, Digital Artist	06/2016 - 06/2020
• Christina Trejo, Project Coordinator	06/2016 - 06/2020
• Owen Ingraham, Digital Artist	07/2018 - 05/2020
• Weikai Chen, Researcher Associate	06/2017 - 09/2019
• Jun Xing, Postdoctoral Researcher	05/2017 - 01/2019
• Andrew Jones, Sr. Research Associate	06/2016 - 01/2018

Columbia University, Computer Science Department

- Nathaniel Clinger, BSc Student 01/2012 - 05/2012
- Papoj Thamjaroenporn, BSc Student 01/2012 - 05/2012
- Pei-Lun Hsieh, MSc Student 01/2012 - 05/2012
- Xiaochen Hu, BSc Student 01/2012 - 05/2012

EPFL, School of Computer and Communication Sciences

- Alexandru Ichim, MSc Student 06/2010 - 09/2010

ETH Zurich, Department of Computer Science

- Huw Bowles, MSc Student 11/2008 - 05/2009
- Jens Puwein, MSc Student 02/2008 - 08/2008
- Jeroen Dries, MSc Student 09/2006 - 03/2007

PhD Defense

- Egot Zakharov, *Skoltech* 04/2023
- Zeng Huang, *University of Southern California* 08/2020
- Yi Zhou, *University of Southern California* 03/2020
- Shunsuke Saito, *University of Southern California* 12/2019
- Jens Windau, *University of Southern California* 04/2019
- Liwen Hu, *University of Southern California* 11/2018
- Lingyu Wei, *University of Southern California* 03/2018
- Yi Guo, *University of Southern California* 03/2017
- Kai Chang, *University of Southern California* 02/2017
- Srinath Sridhar, *Saarland University / Max Planck Institute for Informatics* 12/2016
- Hongyi Xu, *University of Southern California* 11/2016
- Morten Bojsen-Hansen, *IST Austria* 07/2016
- Koki Nagano, *University of Southern California* 04/2016
- Sema Berkiten, *Princeton University* 02/2016
- Paul Graham, *University of Southern California* 05/2014
- Zhuoliang Kang, *University of Southern California* 04/2014

PhD Qualifying Committee

- Zimo Li, *University of Southern California* 04/2020
- Zeng Huang, *University of Southern California* 03/2020
- Yitao Hu, *University of Southern California* 02/2020
- Yi Zhou, *University of Southern California* 01/2019
- Loc Huynh, *University of Southern California* 05/2018
- Weiyue Wang, *University of Southern California* 04/2018
- Chloe Legendre, *University of Southern California* 03/2018
- Lingyu Wei, *University of Southern California* 11/2017
- Jens Windau, *University of Southern California* 11/2017
- Yijing Li, *University of Southern California* 05/2017
- Sean Mason, *University of Southern California* 03/2017
- Soravit Changpinyo, *University of Southern California* 11/2016
- Yi Guo, *University of Southern California* 12/2015
- Inkyu Kim, *University of Southern California* 08/2016
- Matthias Hernandez, *University of Southern California* 05/2016
- Tran Tuan Anh, *University of Southern California* 04/2016
- Arnav Aghaarwal, *University of Southern California* 04/2016
- Kai Chang, *University of Southern California* 02/2016
- Ruizhe Wang, *University of Southern California* 12/2015
- Rongqi Qiu, *University of Southern California* 08/2015
- Christian Potthast, *University of Southern California* 05/2015
- Kai Chang, *University of Southern California* 05/2015
- Guan Pang, *University of Southern California* 05/2014
- Mohammad Abdel-Majeed, *University of Southern California* 03/2014
- Paul Graham, *University of Southern California* 09/2013

- Andrew Jones, *University of Southern California* 09/2013
- Morten Bojsen-Hansen, *IST Austria* 07/2012
- Breannan Smith, *Columbia University* 03/2012

Outreach

Mohamed Bin Zayed University of Artificial Intelligence

- MBZUAI Graduate Program + Scholarship Opportunities in Artificial Intelligence, FS 2023
- MBZUAI Undergraduate Research Internship Program (UGRIP) 2023 (Best Presentation), Supervisor, SS 2023
- National Experts Program, Academic Mentor, SS 2023
- UAE Climate Tech 2023, MBZUAI Delegation, SS 2023
- MBZUAI Graduate Program + Scholarship Opportunities in Artificial Intelligence, SS 2023
- MBZUAI Graduate Program + Scholarship Opportunities in Artificial Intelligence, FS 2022

University of Southern California

- USC Viterbi EngX 2019 (ONR STEM)
- USC London Hackathon 2018
- USC Academic Career Mentoring Panel 2017
- USC Viterbi K-12 STEM: Coding and Animation (Screening and Panel) 2015

ACADEMIC SERVICES

Mohamed Bin Zayed University of Artificial Intelligence

- HCI Faculty Search Committee, SS 2024
- MBZUAI Data Observatory Task Force, SS 2023
- Student Admissions Committee, SS 2023
- HPC Advisory Committee, SS 2023
- PhD Courses Committee, SS 2023
- MBZUAI Commencement Task Force, FS 2022
- MBZUAI Data Observatory Task Force, FS 2022
- HCI Faculty Search Committee, FS 2022
- Robotics Faculty Search Committee, FS 2022
- Student Admissions Committee, FS 2022

University of Southern California, Computer Science Department

- Annual Faculty Merit Review Committee, SS 2020
- CS Department Faculty Search Committee, FS 2019
- CS Games Curriculum Revision Committee, FS 2019
- SCA IMGD / CSGames Faculty Joint Appointment Committee (Chair), FS 2019
- ICT MxR Director Search Committee, FS 2018
- SCA IMGD / CSGames Faculty Tenure Committee, FS 2018
- CS Department PhD Admissions Committee, FS 2018
- SCA IMGD / CSGames Faculty Search Committee, SS 2018
- CS Department PhD Admissions Committee, FS 2017
- Annual Faculty Merit Review Committee, SS 2017
- CS Department PhD Admissions Committee, FS 2016
- CS Department Faculty Search Committee, FS 2015
- CS Department PhD Admissions Committee, FS 2015
- CS Department Faculty Search Committee, FS 2014
- CS Department Transformative Committee, FS 2013
- Co-Chair of CS Department Colloquium Committee, FS 2013

CONSULTING

Abu Dhabi Executive Office	11/2022 - ongoing
The Washington Post	05/2019 - ongoing
American Scholastic Convention Research	07/2021 - 11/2022

Munger, Tolles & Olson LLP	10/2018 - 02/2023
Daignault Iyer LLP	02/2021 - 03/2021
Canadian Security Intelligence Service	03/2021 - 05/2023
Goldberg Segalla LLP	05/2020 - 02/2021
Huawei	09/2015 - 09/2016
LEIA, Inc.	04/2015 - 10/2015
L Squared Capital Partners	03/2015 - 04/2015
Oculus VR/Facebook	08/2014 - 07/2015
Embodee Corp.	03/2014 - 05/2015
Pelican Imaging	02/2014 - 11-2016
Innored, Inc.	09/2013 - 01/2014
Disney Research Zurich	09/2013 - 09/2016
Industrial Light & Magic, Lucasfilm Ltd.	07/2013 - 06/2014
The Jig Lab	07/2013 - 05/2014
Tuxedo Agency	11/2012 - 11/2012
Artec Group, Inc	08/2011 - 12/2014
3Gear Systems	05/2011 - 04/2012
XYZ RGB, Inc.	07/2011 - 01/2012
Max Planck Institute for Intelligent Systems	05/2011 - 11/2011
C-RAD AB	08/2010 - 08/2011
Mova LLC	08/2010 - 10/2010
Filmakademie Baden-Württemberg GmbH, Institute for Animation	04/2010 - 07/2010
Aguru Images, Inc.	08/2008 - 07/2009

RESEARCH GRANTS & GIFTS

Total Funding Awarded to PI: \$18,567,472 where \$840,000 for MBZUAI, \$3,522,525 for USC, and \$14,204,945 for USC/ICT.

University Funding for MBZUAI

Mohamed bin Zayed University of Artificial Intelligence
 MBZUAI Start-up Funding
 Start Date: 05/10/2022
 Award Amount: \$840,000
 Role: PI (MBZUAI)

Federal Funding for USC and USC/ICT (\$12,017,745)

Army Research Office (ARO)
 RTO: Diverse Crowd Generation at Scale with Lifelike Faces
 Duration: 06/01/2020 - 05/31/2021
 Award Amount: \$189,000
 Role: PI (USC/ICT)

Army Research Office (ARO)
 UARC 6.1: AI-Driven 3D Shape and Motion Synthesis
 Duration: 11/01/2019 - 10/31/2021
 Award Amount: \$2,636,190
 Role: PI (USC/ICT)

Army Research Office (ARO)
 RTO: Real-Time Dynamic Occlusion Handling for RGB-Based Augmented Reality
 Duration: 11/01/2019 - 10/31/2020
 Award Amount: \$200,000
 Role: PI (USC/ICT)

U.S. Army Natick (NATICK)
Virtual Reality Testbed
Duration: 08/06/2019 I - 12/06/2019
Award Amount: \$100,500
Role: PI (USC/ICT)

Central Intelligence Agency (CIA)
Project Nexus: Lifelike Digital Human Replica
Duration: 09/01/2018 - 08/31/2019
Award Amount: \$1,000,000
Role: PI (USC/ICT)

Army Research Office (ARO)
RTO: Scalable and Efficient Light Stage Pipeline for High-Fidelity Face Digitization
Duration: 09/01/2018 - 08/31/2019
Award Amount: \$200,000
Role: PI (USC/ICT)

U.S. Army Natick (NATICK)
High-Fidelity Rigging and Shading of Virtual Soldiers
Duration: 09/01/2018 - 03/31/2019
Award Amount: \$157,500
Role: PI (USC/ICT)

Office of Naval Research (ONR - HPTE)
Young Investigator Program (YIP): Complete Human Digitization and Unconstrained Performance Capture
Duration: 06/01/2018 - 05/31/2021
Award Amount: \$591,509
Role: PI (USC)

Semiconductor Research Corporation (SRC) / Defense Advanced Research Projects Agency (DARPA)
JUMP: Computing On Network Infrastructure for Pervasive, Cognition, and Action
Duration: 01/01/2018 - 12/31/2022
Award Amount: \$1,174,818
Role: PI (USC)

Army Research Office (ARO)
UARC 6.1/6.2: Avatar Digitization & Immersive Communication Using Deep Learning
Duration: 11/01/2017 - 10/31/2019
Award Amount: \$2,821,000
Role: PI (USC/ICT)

Army Research Office (ARO)
RTO: Strip-Based Hair Modeling Using Virtual Reality
Duration: 11/01/2017 - 10/31/2018
Award Amount: \$250,000
Role: PI (USC/ICT)

Army Research Office (ARO)
RTO: Head-Mounted Facial Capture & Rendering for Augmented Reality
Duration: 11/01/2017 - 10/31/2018
Award Amount: \$200,000
Role: PI (USC/ICT)

Army Research Office (ARO)
UARC 6.1/6.2: Capture, Rendering, & Display for Virtual Humans
Duration: 11/01/2016 - 10/31/2017
Award Amount: \$1,408,011
Role: Project Lead (USC/ICT)

United States SHARP Academy (ARO)
Digital SHARP Survivor
Duration: 07/01/2016 - 06/31/2017
Award Amount: \$94,953
Role: PI (USC/ICT)

Army Research Office (ARO)
RTO: Lighting Reproduction for RGB Camouflage
Duration: 01/01/2016 - 12/31/2017
Award Amount: \$200,000
Role: PI (USC/ICT)

U.S. Army Natick (NATICK)
Research Contract
Duration: 09/01/2015 - 12/31/2016
Award Amount: \$145,000
Role: PI (USC/ICT)

Office of Naval Research (ONR)
Markerless Performance Capture for Automated Functional Movement Screening
Duration: 08/01/2015 - 09/30/2017
Award Amount: \$230,000
Role: PI (USC)

Intelligence Advanced Research Projects Activity (IARPA), Department of Defense (DoD)
GLAIVE: Graphics and Learning Aided Vision Engine for Janus
Duration: 07/25/2014 - 07/24/2018
Award Amount: \$419,264
Role: Co-PI (USC)

Industry Funding for USC and USC/ICT (\$4,121,561)

Facebook
Facebook Award
Date: 02/25/2020
Award Amount: \$10,000
Role: PI (USC)

Sony Corporation
Light Stage Processing Research
Duration: 10/01/2019 - 09/30/2020
Award Amount: \$200,000
Role: PI (USC/ICT)

Toppan Printing Co., Ltd.
Research Contract
Duration: 10/01/2019 - 09/30/2020
Award Amount: \$697,150
Role: PI (USC/ICT)

Engility Corporation
Mystique
Date: 06/01/2019 - 08/31-2019
Award Amount: \$68,473
Role: PI (USC/ICT)

Adobe Systems Inc.
Research Gift Donation
Date: 28/02/2019
Award Amount: \$5,000
Role: PI (USC)

Softbank Corp.
3D Modeled, Rigged, and Animated Characters from 2D Video
Duration: 01/01/2019 - 01/01/2020
Award Amount: \$111,534
Role: Co-PI (USC)

Snap Inc.
Research Gift Donation
Date: 10/29/2018
Award Amount: \$20,000
Role: PI (USC)

TOEI Company, Ltd.
Research Contract
Duration: 06/01/2018 - 03/01/2019
Award Amount: \$580,000
Role: PI (USC/ICT)

Lightstage, LLC / Otoy
Research Contract
Duration: 05/15/2018 - 12/31/2018
Award Amount: \$152,000
Role: PI (USC/ICT)

Sony Corporation
Highly Sparse Volumetric Capture Using Deep Learning
Duration: 05/01/2018 - 04/31/2019
Award Amount: \$120,000
Role: PI (USC)

Sony Corporation
Geometry and Appearance Synthesis for 3D Human Performance Capture
Duration: 05/01/2017 - 04/31/2018
Award Amount: \$120,000
Role: PI (USC)

Adobe Systems Inc.
Research Gift Donation
Date: 08/09/2017
Award Amount: \$20,000
Role: PI (USC)

Mediafront Inc.
Research Contract
Date: 06/28/2017
Award Amount: \$38,095
Role: PI (USC/ICT)

Activision Publishing Inc.
Research Contract
Date: 05/09/2017
Award Amount: \$21,593
Role: PI (USC/ICT)

Electronic Arts Inc.
Research Contract
Duration: 12/01/2016 - 12/01/2018
Award Amount: \$460,000
Role: PI (USC/ICT)

SOOVII Digital Media Technology, Ltd
Research Contract
Date: 11/01/2016
Award Amount: \$1,080,000
Role: PI (USC/ICT)

RL Leaders, LLC
Research Contract
Date: 10/01/2016
Award Amount: \$630,216
Role: PI (USC/ICT)

Sony Corporation
Shape and Reflectance Estimation via Polarization Analysis
Duration: 08/12/2016 - 08/23/2017
Award Amount: \$50,000
Role: PI (USC/ICT)

Adobe Systems Inc.
Research Gift Donation
Date: 01/07/2016
Award Amount: \$10,000
Role: PI (USC)

Sony Corporation
Unconstrained Dynamic Shape Capture
Duration: 11/01/2015 - 10/31/2016
Award Amount: \$123,500
Role: PI (USC)

Facebook / Oculus
Facebook Award
Date: 10/14/2015
Award Amount: \$25,000
Role: PI (USC)

Huawei

Development of a 3D Hair Database

Date: 09/01/2015

Award Amount: \$50,000

Role: PI (USC)

Okawa Foundation

Okawa Foundation Award

Date: 10/08/2015

Award Amount: \$10,000

Role: PI (USC)

Adobe Systems Inc.

Research Gift Donation

Date: 04/27/2015

Award Amount: \$9,000

Role: PI (USC)

Embodee Corporation

Research Gift Donation

Date: 03/17/2015

Award Amount: \$70,000

Role: PI (USC)

Google

Google Faculty Research Award: Data-Driven Framework for Unified Face and Hair Digitization

Date: 02/12/2015

Award Amount: \$52,000

Role: PI (USC)

Facebook / Oculus

Facebook Award

Date: 02/03/2015

Award Amount: \$25,000

Role: PI (USC)

Panasonic Corporation

Markerless Real-Time Facial Performance Capture

Date: 09/22/2014

Award Amount: \$20,000

Role: PI (USC)

Pelican Imaging Corporation

Research Gift Donation

Date: 07/22/2014

Award Amount: \$50,000

Role: PI (USC)

Innored Inc.

Research Gift Donation

Date: 11/01/2013

Award Amount: \$25,000

Role: PI (USC)

University Funding for USC and USC/ICT (\$856,166)

USC Shoah Foundation Institute
 New Dimensions in Testimony
 Duration: 05/01/2016 - 09/31/2017
 Award Amount: \$625,266
 Role: PI (USC/ICT)

University of Southern California
 Andrew and Erna Viterbi Early Career Chair
 Start Date: 08/16/2015
 Award Amount: \$20,000 (to date)
 Role: PI (USC)

University of Southern California - Integrated Media System Center (IMSC)
 IMSC Award
 Duration: 07/01/2013 - 06/30/2014
 Award Amount: \$11,000
 Role: PI (USC)

University of Southern California
 USC Start-up Funding
 Start Date: 09/01/2013
 Award Amount: \$199,900
 Role: PI (USC)

AWARDS & HONORS

MBZUAI IEC Innovation Grant (Growth Grant)	12/2023
Best Los Angeles Companies and Startups 2021 by BestStartup.us	07/2021
Welp Magazine Top 10 Virtual Reality Companies in Los Angeles (2021)	02/2021
Epic MegaGrants Recipient	12/2020
ACM SIGGRAPH 2020 Real-Time Live! "Best in Show" Award	08/2020
AMiner 2020 AI2000 Most Influential Scholar (Honorable Mention in Computer Graphics)	04/2020
DARPA Information Science and Technology (ISAT) Study Group Member	06/2019
Office of Naval Research (ONR) Young Investigator Program (YIP) Award	02/2018
USC Stevens Commercialization Award	05/2017
Microsoft Academic Top 10 Leaderboard in the past 5 years in Computer Graphics (ranking #1)	05/2016
World Technology Award Fellow	10/2015
Andrew and Erna Viterbi Early Career Chair	10/2015
Okawa Foundation Research Grant	09/2015
Google Faculty Research Award	02/2015
C-Suite Quaterly NextGen 10: Innovators under 40	01/2014
World's top 35 innovator under 35 by MIT Technology Review	08/2013
Swiss National Science Foundation fellowship for prospective researchers	03/2011
ACM Symposium on Computer Animation Best Paper Award '09	08/2009
National Science Foundation 3DPVT '06 Student Travel Stipend	05/2006
German Academic Exchange Service (DAAD) fellowship	01/2006
Karl-Steinbuch scholarship of the MFG Baden-Württemberg	10/2005
Thomas Gessmann-Stiftung fellowship, German Science Foundation	09/2004
Baden-Württemberg scholarship of the Markel Foundation	10/2004
Scholarship of the Richard Winter foundation	09/2004
ERASMUS scholarship	10/2002
E-fellows scholarship	11/2001

[78] VOODOO 3D: VOLUMETRIC PORTRAIT DISENTANGLEMENT FOR ONE SHOT HEAD REENACTMENT

Phong Tran, Egor Zakharov, Long-Nhat Ho, Anh Tuan Tran, Liwen Hu, Hao Li

*Proceedings of the 37th IEEE International Conference on Computer Vision and Pattern Recognition 2024, (CVPR 2024), 06/2024***[77] XMEM++: PRODUCTION-LEVEL VIDEO SEGMENTATION FROM FEW ANNOTATED FRAMES**

Maksym Bekuzarov, Ariana Bermudez, Joon-Young Lee, Hao Li

*Proceedings of the IEEE International Conference on Computer Vision 2023, (ICCV 2023), 10/2023***[76] WATCH THOSE WORDS: VIDEO FALSIFICATION DETECTION USING WORD-CONDITIONED FACIAL MOTION**

Shruti Agarwal, Liwen Hu, Evonne Ng, Trevor Darrell, Hao Li, Anna Rohrbach

*Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision 2023, (WACV 2023), 01/2023***[75] LEARNING TO LISTEN: MODELING NON-DETERMINISTIC DYADIC FACIAL MOTION**

Evonne Ng, Hanbyul Joo, Liwen Hu, Hao Li, Trevor Darrell, Angjoo Kanazawa, Shiry Ginosar

*Proceedings of the 35th IEEE International Conference on Computer Vision and Pattern Recognition 2022, (CVPR 2022), 06/2022***[74] TASK-GENERIC HIERARCHICAL HUMAN MOTION PRIOR USING VAES**

Jiaman Li, Ruben Villegas, Duygu Ceylan, Jimei Yang, Zhengfei Kuang, Hao Li, Yajie Zhao

*Proceedings of the 9th International Conference on 3D Vision 2021, (3DV 2021), 12/2021***[73] PLENOCTREES FOR REAL-TIME RENDERING OF NEURAL RADIANCE FIELDS**

Alex Yu, Ruilong Li, Matthew Tancik, Hao Li, Ren Ng, Angjoo Kanazawa

*Proceedings of the IEEE International Conference on Computer Vision 2021, (ICCV 2021 Oral Presentation), 10/2021***[72] TOPOLOGICALLY CONSISTENT MULTI-VIEW FACE INFERENCE USING VOLUMETRIC SAMPLING**

Tianye Li, Shichen Liu, Timo Bolkart, Jiayi Liu, Hao Li, Yajie Zhao

*Proceedings of the IEEE International Conference on Computer Vision 2021, (ICCV 2021 Oral Presentation), 10/2021***[71] DISUNKNOWN: DISTILLING UNKNOWN FACTORS FOR DISENTANGLEMENT LEARNING**

Sitao Xiang, Yuming Gu, Pengda Xiang, Menglei Chai, Hao Li, Yajie Zhao, Mingming He

*Proceedings of the IEEE International Conference on Computer Vision 2021, (ICCV 2021), 10/2021***[70] NORMALIZED AVATAR SYNTHESIS USING STYLEGAN AND PERCEPTUAL REFINEMENT**

Huiwen Luo, Liwen Hu, Koki Nagano, Zejian Wang, Han-Wei Kung, Qingguo Xu, Lingyu Wei, Hao Li

*Proceedings of the 34th IEEE International Conference on Computer Vision and Pattern Recognition 2021, (CVPR 2021), 06/2021***[69] EQUIVARIANT POINT NETWORK FOR 3D POINT CLOUD ANALYSIS**

Haiwei Chen, Shichen Liu, Weikai Chen, Hao Li

Proceedings of the 34th IEEE International Conference on Computer Vision and Pattern Recognition 2021, (CVPR 2021), 06/2021

[68] FULLY CONVOLUTIONAL MESH AUTOENCODER USING EFFICIENT SPATIALLY VARYING KERNELS

Yi Zhou, Chenglei Wu, Zimo Li, Chen Cao, Yuting Ye, Jason Saragih, Hao Li, Yaser Sheikh
Proceedings of the 34th Conference on Neural Information Processing Systems 2020,
(*NeurIPS 2020*), 12/2020

[67] DYNAMIC FACIAL ASSET AND RIG GENERATION FROM A SINGLE SCAN

Jiaman Li, Zhengfei Kuang, Yajie Zhao, Mingming He, Karl Bladin, Hao Li
ACM Transactions on Graphics, Proceedings of the 13th ACM SIGGRAPH Conference and Exhibition in Asia 2020,
(*SIGGRAPH Asia 2020*), 11/2020

[66] MONOCULAR REAL-TIME VOLUMETRIC PERFORMANCE CAPTURE

Ruilong Li, Yuliang Xiu, Shunsuke Saito, Zeng Huang, Kyle Olszewski, Hao Li
Proceedings of the 16th European Conference on Computer Vision 2020,
(*ECCV 2020*), 08/2020

[65] A GENERAL DIFFERENTIABLE MESH RENDERER FOR IMAGE-BASED 3D REASONING

Shichen Liu, Tianye Li, Weikai Chen, Hao Li
IEEE Transaction on Pattern Analysis and Machine Intelligence 2020,
(*PAMI 2020*), 7/2020

[64] LEARNING FORMATION OF PHYSICALLY-BASED FACE ATTRIBUTES

Ruilong Li, Karl Bladin, Yajie Zhao, Chinmay Chinara, Owen Ingraham, Pengda Xiang, Xinglei Ren, Pratusha Prasad, Bipin Kishore, Jun Xing, Hao Li
Proceedings of the 33rd IEEE International Conference on Computer Vision and Pattern Recognition 2020,
(*CVPR 2020*), 06/2020

[63] INTUITIVE, INTERACTIVE BEARD AND HAIR SYNTHESIS WITH GENERATIVE MODELS

Kyle Olszewski, Duygu Ceylan, Jun Xing, Jose I. Echevarria, Zhili Chen, Weikai Chen, Hao Li
Proceedings of the 33rd IEEE International Conference on Computer Vision and Pattern Recognition 2020,
(*CVPR 2020 Oral Presentation*), 06/2020

[62] ARCH: ANIMATABLE RECONSTRUCTION OF CLOTHED HUMANS

Zeng Huang, Yuanlu Xu, Christoph Lassner, Hao Li, Tony Tung
Proceedings of the 33rd IEEE International Conference on Computer Vision and Pattern Recognition 2020,
(*CVPR 2020*), 06/2020

[61] LEARNING TO INFER IMPLICIT SURFACES WITHOUT 3D SUPERVISION

Shichen Liu, Shunsuke Saito, Weikai Chen, Hao Li
Proceedings of the 33rd Conference on Neural Information Processing Systems 2019,
(*NeurIPS 2019*), 12/2019

[60] DEEP FACE NORMALIZATION

Koki Nagano, Huiwen Luo, Zejian Wang, Jaewoo Seo, Jun Xing, Liwen Hu, Lingyu Wei, Hao Li
ACM Transactions on Graphics, Proceedings of the 12th ACM SIGGRAPH Conference and Exhibition in Asia 2019,
(*SIGGRAPH Asia 2019*), 11/2019

[59] SOFTRASTERIZER: DIFFERENTIABLE RENDERING FOR IMAGE-BASED 3D REASONING

Shichen Liu, Tianye Li, Weikai Chen, Hao Li
Proceedings of the IEEE International Conference on Computer Vision 2019,
(*ICCV 2019 Oral Presentation*), 10/2019

[58] PIFU: PIXEL-ALIGNED IMPLICIT FUNCTION FOR HIGH-RESOLUTION CLOTHED HUMAN DIGITIZATION

Shunsuke Saito, Zeng Huang, Ryota Natsume, Shigeo Morishima, Angjoo Kanazawa, Hao Li
Proceedings of the IEEE International Conference on Computer Vision 2019,
(*ICCV 2019*), 10/2019

[57] LEARNING PERSPECTIVE UNDISTORTION OF PORTRAITS

Yajie Zhao, Zeng Huang, Tianye Li, Weikai Chen, Chloe LeGendre, Xinglei Ren, Jun Xing, Ari Shapiro, Hao Li
Proceedings of the IEEE International Conference on Computer Vision 2019,
(ICCV 2019 Oral Presentation), 10/2019

[56] TRANSFORMABLE BOTTLENECK NETWORKS

Kyle Olszewski, Sergey Tulyakov, Oliver Woodford, Hao Li, Linjie Luo
Proceedings of the IEEE International Conference on Computer Vision 2019,
(ICCV 2019 Oral Presentation), 10/2019

[55] HAIRBRUSH FOR IMMERSIVE DATA-DRIVEN HAIR MODELING

Jun Xing, Koki Nagano, Weikai Chen, Haotian Xu, Li-Yi Wei, Yajie Zhao, Jingwan Lu, Byungmoon Kim, Hao Li
Proceedings of the 32nd ACM User Interface Software and Technology Symposium 2019,
(UIST 2019), 10/2019

[54] PROTECTING WORLD LEADERS AGAINST DEEP FAKES

Shruti Agarwal, Hany Farid, Yuming Gu, Mingming He, Koki Nagano, Hao Li
IEEE International Conference on Computer Vision and Pattern Recognition 2019 Workshop on Media Forensics,
(CVPR 2019 Workshops), 06/2019

[53] SICLOPE: SILHOUETTE-BASED CLOTHED PEOPLE

Ryota Natsume, Shunsuke Saito, Zeng Huang, Weikai Chen, Chongyang Ma, Hao Li, Shigeo Morishima
Proceedings of the 32nd IEEE International Conference on Computer Vision and Pattern Recognition 2019,
(CVPR 2019 Oral Presentation - Best Paper Award Finalist), 06/2019

[52] ON THE CONTINUITY OF ROTATION REPRESENTATION IN NEURAL NETWORKS

Yi Zhou, Connelly Barnes, Jingwan Lu, Jimei Yang, Hao Li
Proceedings of the 32nd IEEE International Conference on Computer Vision and Pattern Recognition 2019,
(CVPR 2019), 06/2019

[51] PAGAN: REAL-TIME AVATARS USING DYNAMIC TEXTURES

Koki Nagano, Jaewoo Seo, Jun Xing, Lingyu Wei, Zimo Li, Shunsuke Saito, Aviral Agarwal, Jens Fursund, Hao Li
ACM Transactions on Graphics, Proceedings of the 11th ACM SIGGRAPH Conference and Exhibition in Asia 2018,
(SIGGRAPH Asia 2018), 12/2018

[50] 3D HAIR SYNTHESIS USING VOLUMETRIC VARIATIONAL AUTOENCODERS

Shunsuke Saito, Liwen Hu, Chongyang Ma, Hikaru Ibayashi, Linjie Luo, Hao Li
ACM Transactions on Graphics, Proceedings of the 11th ACM SIGGRAPH Conference and Exhibition in Asia 2018,
(SIGGRAPH Asia 2018), 12/2018

[49] REAL-TIME HAIR RENDERING USING SEQUENTIAL ADVERSARIAL NETWORKS

Lingyu Wei, Liwen Hu, Vladimir Kim, Ersin Yumer, Hao Li
Proceedings of the 15th European Conference on Computer Vision 2018,
(ECCV 2018), 09/2018

[48] HAIRNET: SINGLE-VIEW HAIR RECONSTRUCTION USING CONVOLUTIONAL NEURAL NETWORKS

Yi Zhou, Liwen Hu, Jun Xing, Weikai Chen, Han-Wei Kung, Xin Tong, Hao Li
Proceedings of the 15th European Conference on Computer Vision 2018,
(ECCV 2018), 09/2018

[47] DEEP VOLUMETRIC VIDEO FROM VERY SPARSE MULTI-VIEW PERFORMANCE CAPTURE

Zeng Huang, Tianye Li, Weikai Chen, Yajie Zhao, Jun Xing, Chloe LeGendre, Linjie Luo, Chongyang Ma, Hao Li
Proceedings of the 15th European Conference on Computer Vision 2018,
(ECCV 2018), 09/2018

[46] HYBRID FUSION: REAL-TIME PERFORMANCE CAPTURE USING A SINGLE DEPTH SENSOR AND SPARSE IMUS

Zerong Zheng, Tao Yu, Hao Li, Kaiwen Guo, Qionghai Dai, Lu Fang, Yebin Liu
Proceedings of the 15th European Conference on Computer Vision 2018,
(ECCV 2018), 09/2018

[45] CONTEXTUAL-BASED IMAGE INPAINTING: INFER, MATCH, AND TRANSLATE

Yuhang Song, Chao Yang, Zhe Lin, Xiaofeng Liu, Qin Huang, Hao Li, C.-C. Jay Kuo
Proceedings of the 15th European Conference on Computer Vision 2018,
(ECCV 2018), 09/2018

[44] HIGH-FIDELITY FACIAL REFLECTANCE AND GEOMETRY INFERENCE FROM AN UNCONSTRAINED IMAGE

Shugo Yamaguchi, Shunsuke Saito, Koki Nagano, Yajie Zhao, Weikai Chen, Kyle Olszewski, Shigeo Morishima, Hao Li
ACM Transactions on Graphics, Proceedings of the 45th ACM SIGGRAPH Conference and Exhibition 2018,
(SIGGRAPH 2018), 08/2018

[43] MESOSCOPIC FACIAL GEOMETRY INFERENCE USING DEEP NEURAL NETWORKS

Loc Huynh, Weikai Chen, Shunsuke Saito, Jun Xing, Koki Nagano, Andrew Jones, Paul Debevec, Hao Li
Proceedings of the 31st IEEE International Conference on Computer Vision and Pattern Recognition 2018,
(CVPR 2018 Spotlight Presentation), 06/2018

[42] DOUBLE FUSION: REAL-TIME CAPTURE OF HUMAN PERFORMANCES WITH INNER BODY SHAPES FROM A SINGLE DEPTH SENSOR

Tao Yu, Zerong Zheng, Kaiwen Guo, Jianhui Zhao, Qionghai Dai, Hao Li, Gerard Pons-Moll, Yebin Liu
Proceedings of the 31st IEEE International Conference on Computer Vision and Pattern Recognition 2018,
(CVPR 2018 Oral Presentation), 06/2018

[41] AUTO-CONDITIONED RECURRENT NETWORKS FOR EXTENDED COMPLEX HUMAN MOTION SYNTHESIS

Zimo Li, Yi Zhou, Shuangjio Xiao, Chong He, Zeng Huang, Hao Li
Proceedings of the Sixth International Conference on Learning Representations 2018, arXiv:1707.05363,
(ICLR 2018), 04/2018

[40] AVATAR DIGITIZATION FROM A SINGLE IMAGE FOR REAL-TIME RENDERING

Liwen Hu, Shunsuke Saito, Lingyu Wei, Koki Nagano, Jaewoo Seo, Jens Fursund, Iman Sadeghi, Carrie Sun, Yen-Chun Chen, Hao Li
ACM Transactions on Graphics, Proceedings of the 10th ACM SIGGRAPH Conference and Exhibition in Asia 2017,
(SIGGRAPH Asia 2017), 11/2017

[39] LEARNING A MODEL OF FACIAL SHAPE AND EXPRESSION FROM 4D SCANS

Tianye Li, Timo Bolkart, Michael J. Black, Hao Li, Javier Romero
ACM Transactions on Graphics, Proceedings of the 10th ACM SIGGRAPH Conference and Exhibition in Asia 2017,
(SIGGRAPH Asia 2017), 11/2017

[38] LEARNING DENSE FACIAL CORRESPONDENCES IN UNCONSTRAINED IMAGES

Ronald Yu, Shunsuke Saito, Haoxiang Li, Duygu Ceylan, Hao Li
Proceedings of the IEEE International Conference on Computer Vision 2017,
(ICCV 2017), 10/2017

[37] REALISTIC DYNAMIC FACIAL TEXTURES FROM A SINGLE IMAGE USING GANS

Kyle Olszewski, Zimo Li, Chao Yang, Yi Zhou, Ronald Yu, Zeng Huang, Sitao Xiang, Shunsuke Saito, Pushmeet Kohli, Hao Li
Proceedings of the IEEE International Conference on Computer Vision 2017,
(ICCV 2017), 10/2017

[36] PRODUCTION-LEVEL FACIAL PERFORMANCE CAPTURE USING DEEP CONVOLUTIONAL NEURAL NET-WORKS

Samuli Laine, Tero Karras, Timo Aila, Antti Herva, Shunsuke Saito, Ronald Yu, Hao Li, Jaakko Lehtinen
Proceedings of the 16th ACM SIGGRAPH / Eurographics Symposium on Computer Animation 2017, arXiv:1609.06536, (SCA 2017), 07/2017

[35] PHOTOREALISTIC FACIAL TEXTURE INFERENCE USING DEEP NEURAL NETWORKS

Shunsuke Saito, Lingyu Wei, Liwen Hu, Koki Nagano, Hao Li
Proceedings of the 30th IEEE International Conference on Computer Vision and Pattern Recognition 2017, arXiv:1612.00523, (CVPR 2017 Spotlight Presentation), 07/2017

[34] HIGH-RESOLUTION IMAGE INPAINTING USING MULTI-SCALE NEURAL PATCH SYNTHESIS

Chao Yang, Xin Lu, Zhe Lin, Eli Shechtman, Oliver Wang, Hao Li
Proceedings of the 30th IEEE International Conference on Computer Vision and Pattern Recognition 2017, arXiv:1611.09969, (CVPR 2017), 07/2017

[33] SIMULATION-READY HAIR CAPTURE

Liwen Hu, Derek Bradley, Hao Li, Thabo Beeler
Computer Graphics Forum 36(2), Proceedings of the 38th Annual Conference of the European Association for Computer Graphics 2017, (Eurographics 2017), 04/2017

[32] MULTI-VIEW STEREO ON CONSISTENT FACE TOPOLOGY

Graham Fyffe, Koki Nagano, Loc Huynh, Shunsuke Saito, Jay Bush, Andrew Jones, Hao Li, Paul Debevec
Computer Graphics Forum 36(2), Proceedings of the 38th Annual Conference of the European Association for Computer Graphics 2017, (Eurographics 2017), 04/2017

[31] LEARNING DETAIL TRANSFER BASED ON GEOMETRIC FEATURES

Sema Berkiten, Maciej Halber, Justin Solomon, Chongyang Ma, Hao Li, Szymon Rusinkiewicz
Computer Graphics Forum 36(2), Proceedings of the 38th Annual Conference of the European Association for Computer Graphics 2017, (Eurographics 2017), 04/2017

[30] HIGH-FIDELITY FACIAL AND SPEECH ANIMATION FOR VR HMDS

Kyle Olszewski, Joseph J. Lim, Shunsuke Saito, Hao Li
ACM Transactions on Graphics, Proceedings of the 9th ACM SIGGRAPH Conference and Exhibition in Asia 2016, (SIGGRAPH Asia 2016), 12/2016

[29] REAL-TIME FACIAL SEGMENTATION AND PERFORMANCE CAPTURE FROM RGB INPUT

Shunsuke Saito, Tianye Li, Hao Li
Proceedings of the 14th European Conference on Computer Vision 2016, arXiv:1604.02801 (ECCV 2016), 10/2016

[28] CAPTURING DYNAMIC TEXTURED SURFACES OF MOVING TARGETS

Ruizhe Wang, Lingyu Wei, Etienne Vouga, Qixing Huang, Duygu Ceylan, Gerard Medioni, Hao Li
Proceedings of the 14th European Conference on Computer Vision 2016, arXiv:1604.02801 (ECCV 2016 Spotlight Presentation), 10/2016

[27] DENSE HUMAN BODY CORRESPONDENCES USING CONVOLUTIONAL NETWORKS

Lingyu Wei, Qixing Huang, Duygu Ceylan, Etienne Vouga, Hao Li
Proceedings of the 29th IEEE International Conference on Computer Vision and Pattern Recognition 2016, arXiv:1511.05904 (CVPR 2016 Oral Presentation), 06/2016

[26] RAPID PHOTOREALISTIC BLENDSHAPE MODELING FROM RGB-D SENSORS

Dan Casas, Andrew Feng, Oleg Alexander, Graham Fyffe, Paul Debevec, Ryosuke Ichikari, Hao Li, Kyle Olszewski, Evan Suma, Ari Shapiro
Computer Animation and Virtual Worlds 2016, Proceedings of the 29th Conference on Computer Animation and Social Agents, (CASA 2016), 05/2016

[25] PATIENT-SPECIFIC ASSESSMENT OF DYSMORPHISM OF THE FEMORAL HEAD-NECK JUNCTION: A STATISTICAL SHAPE MODEL APPROACH

Vikas Khanduja, Nick Baelde, Andreas Dobbelaere, Jan Van Houcke, Hao Li, Christophe Pattyn, Emmanuel A. Audenaert
The International Journal of Medical Robotics and Computer Assisted Surgery 2015, (MRCAS 2015), 12/2015

[24] FACIAL PERFORMANCE SENSING HEAD-MOUNTED DISPLAY

Hao Li, Laura Trutoiu, Kyle Olszewski, Lingyu Wei, Tristan Trutna, Pei-Lun Hsieh, Aaron Nicholls, Chongyang Ma
ACM Transactions on Graphics, Proceedings of the 42nd ACM SIGGRAPH Conference and Exhibition 2015, (SIGGRAPH 2015), 08/2015

[23] SINGLE-VIEW HAIR MODELING USING A HAIRSTYLE DATABASE

Liwen Hu, Chongyang Ma, Linjie Luo, Hao Li
ACM Transactions on Graphics, Proceedings of the 42nd ACM SIGGRAPH Conference and Exhibition 2015, (SIGGRAPH 2015), 08/2015

[22] SKIN MICROSTRUCTURE DEFORMATION WITH DISPLACEMENT MAP CONVOLUTION

Koki Nagano, Graham Fyffe, Oleg Alexander, Jernej Barbič, Hao Li, Abhijeet Ghosh, Paul Debevec
ACM Transactions on Graphics, Proceedings of the 42nd ACM SIGGRAPH Conference and Exhibition 2015, (SIGGRAPH 2015), 08/2015

[21] UNCONSTRAINED REALTIME FACIAL PERFORMANCE CAPTURE

Pei-Lun Hsieh, Chongyang Ma, Jihun Yu, Hao Li
Proceedings of the 28th IEEE International Conference on Computer Vision and Pattern Recognition 2015, (CVPR 2015), 06/2015

[20] CAPTURING BRAIDED HAIRSTYLES

Liwen Hu, Chongyang Ma, Linjie Luo, Li-Yi Wei, Hao Li
ACM Transactions on Graphics, Proceedings of the 7th ACM SIGGRAPH Conference and Exhibition in Asia 2014, (SIGGRAPH Asia 2014), 12/2014

[19] ROBUST HAIR CAPTURE USING SIMULATED EXAMPLES

Liwen Hu, Chongyang Ma, Linjie Luo, Hao Li
ACM Transactions on Graphics, Proceedings of the 41st ACM SIGGRAPH Conference and Exhibition 2014, (SIGGRAPH 2014), 08/2014

[18] RAPID AVATAR CAPTURE AND SIMULATION USING COMMODITY DEPTH SENSORS

Ari Shapiro, Andrew Feng, Ruizhe Wang, Hao Li, Mark Bolas, Gerard Medioni, Evan Suma
Computer Animation and Virtual Worlds 2014, Proceedings of the 27th Conference on Computer Animation and Social Agents, (CASA 2014), 05/2014

[17] DEPTH SENSOR-BASED REALTIME TUMOR TRACKING FOR ACCURATE RADIATION THERAPY

Björn Nutti, Åsa Kronander, Mattias Nilsing, Kristofer Maad, Cristina Svensson, Hao Li
Eurographics 2014 Short Papers presented at the 35th Annual Conference of the European Association for Computer Graphics, (Eurographics 2014 Short Papers), 04/2014

[16] A STATISTICAL SHAPE MODEL OF TROCHLEAR DYSPLASIA OF THE KNEE

Annemieke Van Haver, Peter Mahieu, Tom Claessens, Hao Li, Christophe Pattyn, Peter Verdonk, Emmanuel A. Audenaert

The Knee Journal Elsevier 2013,
(*KNEE 2013*), 12/2013

[15] 3D SELF-PORTRAITS

Hao Li, Etienne Vouga, Anton Gudym, Jonathan T. Barron, Linjie Luo, Gleb Gusev

ACM Transactions on Graphics, Proceedings of the 6th ACM SIGGRAPH Conference and Exhibition in Asia 2013,
(*SIGGRAPH Asia 2013*), 11/2013

[14] REALTIME FACIAL ANIMATION WITH ON-THE-FLY CORRECTIVES

Hao Li, Jihun Yu, Yuting Ye, Chris Bregler

ACM Transactions on Graphics, Proceedings of the 40th ACM SIGGRAPH Conference and Exhibition 2013,
(*SIGGRAPH 2013*), 07/2013

[13] STRUCTURE-AWARE HAIR CAPTURE

Linjie Luo, Hao Li, Szymon Rusinkiewicz

ACM Transactions on Graphics, Proceedings of the 40th ACM SIGGRAPH Conference and Exhibition 2013,
(*SIGGRAPH 2013*), 07/2013

[12] TRACKING SURFACES WITH EVOLVING TOPOLOGY

Morten Bojsen-Hansen, Hao Li, Chris Wojtan

ACM Transactions on Graphics, Proceedings of the 39th ACM SIGGRAPH Conference and Exhibition 2012,
(*SIGGRAPH 2012*), 08/2012

[11] TEMPORALLY COHERENT COMPLETION OF DYNAMIC SHAPES

Hao Li, Linjie Luo, Daniel Vlastic, Pieter Peers, Jovan Popović, Mark Pauly, Szymon Rusinkiewicz

ACM Transactions on Graphics 31(1), Presented at the 39th ACM SIGGRAPH Conference and Exhibition 2012,
(*SIGGRAPH 2012*), 08/2012

[10] MAPPING CARDIAC SURFACE MECHANICS WITH STRUCTURED LIGHT IMAGING

Jacob I. Laughner, Song Zhang, Hao Li, Connie C. Shao, Igor R. Efimov

American Journal of Physiology, Heart and Circulatory Physiology 2012 Jul 13, PMID: 22796539,
(*AJP Heart 2012*), 07/2012

[9] MULTI-VIEW HAIR CAPTURE USING ORIENTATION FIELDS

Linjie Luo, Hao Li, Sylvain Paris, Thibaut Weise, Mark Pauly, Szymon Rusinkiewicz

Proceedings of the 25th IEEE International Conference on Computer Vision and Pattern Recognition 2012,
(*CVPR 2012*), 06/2012

[8] FACTORED FACADE ACQUISITION USING SYMMETRIC LINE ARRANGEMENTS

Duygu Ceylan, Niloy J. Mitra, Hao Li, Thibaut Weise, Mark Pauly

Computer Graphics Forum 31(2), Proceedings of the 33rd Annual Conference of the European Association for Computer Graphics 2012,
(*Eurographics 2012*), 05/2012

[7] REALTIME PERFORMANCE-BASED FACIAL ANIMATION

Thibaut Weise, Sofien Bouaziz, Hao Li, Mark Pauly

ACM Transactions on Graphics, Proceedings of the 38th ACM SIGGRAPH Conference and Exhibition 2011,
(*SIGGRAPH 2011*), 08/2011

[6] EXAMPLE-BASED FACIAL RIGGING

Hao Li, Thibaut Weise, Mark Pauly

ACM Transactions on Graphics, Proceedings of the 37th ACM SIGGRAPH Conference and Exhibition 2010,
(*SIGGRAPH 2010*), 07/2010

[5] ROBUST SINGLE VIEW GEOMETRY AND MOTION RECONSTRUCTION

Hao Li, Bart Adams, Leonidas J. Guibas, Mark Pauly

ACM Transactions on Graphics, Proceedings of the 2nd ACM SIGGRAPH Conference and Exhibition in Asia 2009, (SIGGRAPH Asia 2009), 12/2009

[4] FACE/OFF: LIVE FACIAL PUPPETRY (BEST PAPER AWARD)

Thibaut Weise, Hao Li, Luc Van Gool, Mark Pauly

Proceedings of the 8th ACM SIGGRAPH / Eurographics Symposium on Computer Animation 2009, (SCA 2009), 08/2009

[3] GLOBAL CORRESPONDENCE OPTIMIZATION FOR NON-RIGID REGISTRATION OF DEPTH SCANS

Hao Li, Robert W. Sumner, Mark Pauly

Computer Graphics Forum 27(5), Proceedings of the 6th Eurographics Symposium on Geometry Processing 2008, (SGP 2008), 07/2008

[2] STRUCTURED LIGHT BASED RECONSTRUCTION UNDER LOCAL SPATIAL COHERENCE ASSUMPTION

Hao Li, Raphael Straub, Hartmut Prautzsch

Proceedings of the 3rd IEEE International Symposium on 3D Data Processing, Visualization and Transmission 2006, (3DPVT 2006), 06/2006

[1] FAST SUBPIXEL ACCURATE RECONSTRUCTION USING COLOR STRUCTURED LIGHT

Hao Li, Raphael Straub, Hartmut Prautzsch

Proceedings of the Fourth IASTED International Conference on Visualization, Imaging and Image Processing 2004, (VIIP 2004), 09/2004

COURSE NOTES, TECH TALKS & EXHIBITIONS

[31] VIRTUAL TELEPRESENCE WITH HOLOGRAPHIC AVATARS

Phong Tran, Long-Nhat Ho, Hao Li

GITEX GLOBAL 2023, Dubai, 10/2023

[30] VIRTUAL HUMAN CREATOR

Lingyu Wei, McLean Goldwhite, Zejian Wang, Huiwen Luo, Liwen Hu, Andy Spielberg, Brandon White, Katherine Lee, Aviral Agarwal, Anda Deng, Yen-Chun Chen, Jack Howard, Yuki Ikegami, Yudai Tamamura, Philip Scott, Kazuma Takahashi, Hao Li

SXSW 2022 Creative Industries Expo, Austin, 03/2022

[29] NORMALIZED AVATAR DIGITIZATION FOR COMMUNICATION IN VR

McLean Goldwhite, Zejian Wang, Huiwen Luo, Han-Wei Kung, Koki Nagano, Liwen Hu, Lingyu Wei, Hao Li

ACM SIGGRAPH 2021 Real-Time Live!, 08/2021

[28] AI-SYNTHESIZED AVATARS: FROM REAL-TIME DEEPPAKES TO VIRTUAL AI COMPANIONS

Zejian Wang, Koki Nagano, Liwen Hu, McLean Goldwhite, Jaewoo Seo, Qingguo Xu, Huiwen Luo, Hanwei Kung, Aviral Agarwal, Yen-Chun Chen, Lingyu Wei, Hao Li

ACM SIGGRAPH 2020 Real-Time Live!, 08/2020

[27] VOLUMETRIC HUMAN TELEPORTATION (BEST IN SHOW AWARD)

Ruilong Li, Yuliang Xiu, Shunsuke Saito, Zeng Huang, Kyle Olszewski, Hao Li

ACM SIGGRAPH 2020 Real-Time Live!, 08/2020

[26] DEEPPAKE LIVE

Hao Li, Koki Nagano, Zejian Wang, Yen-Chun Chen

Warner Bros. CES on the Lot 2020, Burbank, 01/2020

[25] DEEPAKED

Hao Li, Jaewoo Seo, Koki Nagano, McLean Goldwhite, Huiwen Luo, Zejian Wang, Lingyu Wei, Yen-Chun Chen
World Economic Forum: Annual Meeting 2020, Davos, 01/2020

[24] PERSONALIZED AVATARS FOR REAL-TIME VIRTUAL TRY-ON

Hao Li, Koki Nagano, Kyle San, McLean Goldwhite, Kyle San, Jaewoo Seo, Yen-Chun Chen, Marco Fratarcangeli
ACM SIGGRAPH Asia 2019 Real-Time Live!, 11/2019

[23] TRUTH IN GRAPHICS AND THE FUTURE OF AI-GENERATED CONTENT

Hao Li, Juan Miguel de Joya, Tianxiang Zheng, Sergey Demyanov, Noelle Martin, Alain Chesnais, Koki Nagano, Bill Posters, Per Karlsson, Taylor Beck, Alexandre de Brébisson, Jassim Happa
ACM SIGGRAPH Asia 2019 Frontiers Workshop, 11/2019

[22] VR HAIR SALON FOR AVATARS

Jun Xing, Liwen Hu, Koki Nagano, Li-Yi Wei, Hao Li
ACM SIGGRAPH 2019 Real-Time Live!, 07/2019

[21] THE HUMAN ELEMENT: DIGITAL MIMICRY

Hao Li, Jaewoo Seo, Koki Nagano, Zejian Wang, Liwen Hu, Lingyu Wei, Yen-Chun Chen
World Economic Forum: Annual Meeting of the New Champions, Dalian, 07/2019

[20] PINSCREEN AVATARS IN YOUR POCKET: MOBILE PAGAN ENGINE AND PERSONALIZED GAMING

Koki Nagano, Shunsuke Saito, Mclean Goldwhite, Kyle San, Aaron Hong, Liwen Hu, Lingyu Wei, Jun Xing, Qingguo Xu, Hanwei Kung, Jiale Kuang, Aviral Agarwal, Erik Castellanos, Jaewoo Seo, Jens Fursund, Hao Li
ACM SIGGRAPH Asia 2018 Real-Time Live!, 12/2018

[19] DEEP LEARNING-BASED PHOTOREAL AVATARS FOR ONLINE VIRTUAL WORLDS ON IOS

Koki Nagano, Jaewoo Seo, Jun Xing, Kyle San, Aaron Hong, Mclean Goldwhite, Jiale Kuang, Aviral Agarwal, Caleb Arthur, Hanwei Kung, Stuti Rastogi, Carrie Sun, Stephen Chen, Jens Fursund, Hao Li
ACM SIGGRAPH 2018 Real-Time Live!, 08/2018

[18] TRUTH IN IMAGES, VIDEOS, AND GRAPHICS

Chris Bregler, Alyosha Efros, Irfan Essa, Hany Farid, Ira Kemelmacher-Shlizerman, Matthias Nießner, Luisa Verdoliva, Hao Li
ACM SIGGRAPH 2018 Sunday Workshop, 08/2018

[17] PINSCREEN: CREATING PERFORMANCE-DRIVEN AVATARS IN SECONDS

Hao Li, Liwen Hu, Koki Nagano, Jaewoo Seo, Shunsuke Saito, Lingyu Wei, Iman Sadeghi, Jens Fursund, Yen-Chun Chen, Stephen Chen, Carrie Sun
ACM SIGGRAPH 2017 Real-Time Live!, 08/2017

[16] PINSCREEN: 3D AVATAR FROM A SINGLE IMAGE

Hao Li, Shunsuke Saito, Jens Fursund, Lingyu Wei, Liwen Hu, Chao Yang, Ronald Yu, Stephen Chen, Isabella Benavente, Yen-Chun Chen
ACM SIGGRAPH Asia 2016 Emerging Technologies, 12/2016

[15] GEOMETRIC DEEP LEARNING

Jonathan Masci, Emanuelle Rodolà, Davide Boscaini, Michael M. Bronstein, Hao Li
ACM SIGGRAPH Asia 2016 Courses, 12/2016

[14] MODERN TECHNIQUES AND APPLICATIONS FOR REAL-TIME NON-RIGID REGISTRATION

Andrea Tagliasacchi, Hao Li
ACM SIGGRAPH Asia 2016 Courses, 12/2016

[13] CANCER MOONSHOT: SXSL - MARKERLESS FACIAL PERFORMANCE CAPTURE

Hao Li
SXSL South by South Lawn: A White House Festival of Ideas, Art, and Action, Interactive Exhibit, 10/2016

[12] CREATING AVATARS FROM A SINGLE IMAGE AND BRINGING THEM TO LIFE

Hao Li, Shunsuke Saito

*ACM SIGGRAPH 2016 Experience Presentations, 07/2016***[11] DIGITIZING THE HUMAN BODY: FROM VR, CONSUMER, TO HEALTH APPLICATIONS**

Hao Li, Tristan Swedish, Pratik Shah, Lingyu Wei, Ramesh Raskar

*ACM SIGGRAPH 2016 Courses, 07/2016***[10] MODELING AND CAPTURING THE HUMAN BODY: FOR RENDERING, HEALTH, AND VISUALIZATION**

Hao Li, Anshuman Das, Tristan Swedish, Hyunsung Park, Ramesh Raskar

*ACM SIGGRAPH 2015 Courses, 08/2015***[9] HOLOCHAT: 3D AVATARS ON MOBILE LIGHT FIELD DISPLAYS**

Jing Liu, Armand Niederberger, Jihun Yu, Hao Li, David Fattal

*ACM SIGGRAPH 2015 Emerging Technologies, 08/2015***[8] DIGITAL IRA AND BEYOND: CREATING PHOTOREAL REAL-TIME DIGITAL CHARACTERS**

Javier von der Pahlen, Jorge Jimenez, Etienne Danvoye, Paul Debevec, Graham Fyffe, Hao Li

*ACM SIGGRAPH 2014 Courses, 08/2014***[7] MAKE YOUR OWN AVATAR**

Ari Shapiro, Andrew Feng, Ruizhe Wang, Hao Li, Mark Bolas, Gerard Medioni, Evan Suma

*ACM SIGGRAPH 2014 Real-Time Live!, 08/2014***[6] MEASUREMENT AND MODELING OF MICROFACET DISTRIBUTION UNDER DEFORMATION**

Koki Nagano, Oleg Alexander, Jernej Barbic, Hao Li, Paul Debevec

*ACM SIGGRAPH 2014 Talks, 08/2014***[5] RAPID AVATAR CAPTURE AND SIMULATION USING COMMODITY DEPTH SENSORS**

Ari Shapiro, Andrew Feng, Ruizhe Wang, Hao Li, Mark Bolas, Gerard Medioni, Evan Suma

*ACM SIGGRAPH 2014 Talks, 08/2014***[4] DYNAMIC GEOMETRY PROCESSING**

Will Chang, Hao Li, Niloy J. Mitra, Mark Pauly, Michael Wand

*Eurographics 2012 Tutorial Notes, 05/2012***[3] KINECT-BASED FACIAL ANIMATION**

Thibaut Weise, Sofien Bouaziz, Hao Li, Mark Pauly

*ACM SIGGRAPH Asia 2011 Emerging Technologies, 12/2011***[2] COMPUTING CORRESPONDENCES IN GEOMETRIC DATA SETS**

Will Chang, Hao Li, Niloy J. Mitra, Mark Pauly, Szymon Rusinkiewicz, Michael Wand

*Eurographics 2011 Tutorial Notes, 04/2011***[1] GEOMETRIC REGISTRATION FOR DEFORMABLE SHAPES**

Will Chang, Hao Li, Niloy J. Mitra, Mark Pauly, Michael Wand

*Eurographics 2010 Tutorial Notes, 05/2010*EDITORIAL, TECHNICAL REPORTS & PATENTS

[16] HOW AI CAN DELIVER EDUCATION IN PLACES WE NEVER THOUGHT POSSIBLE

Hao Li

Arabian Business, Op-Ed, 06/2023

[16] IMMERSIVE MEDIA TECHNOLOGIES: THE ACCELERATION OF AUGMENTED AND VIRTUAL REALITY IN THE WAKE OF COVID-19

Pearly Chen, Mark Griswold, Hao Li, Sandra Lopez, Nahal Norouzi, Gregory Welch, Yu Jingyi, Stéphanie Nassenstein

World Economic Forum White Paper 2022, 02/2022

[16] SPECIAL ISSUE ON HUMAN POSE, MOTION, ACTIVITIES AND SHAPE IN 3D

Manuel J. Marín-Jiménez, Javier Romero, Hao Li, Grégory Rogez

International Journal of Computer Vision Special Issue 2022, Springer Nature (IJCV 2022), 01/2022

[15] PIXEL-ALIGNED IMPLICIT FUNCTION FOR HIGH_RESOLUTION CLOTHED HUMAN DIGITIZATION

Hao Li, Shunsuke Saito, Zeng Huang, Ryota Natsume, Angjoo Kanazawa, Shigeo Morishima

US Provisional Patent (62/846136), filed 05/2019

[14] TECHNICAL PERSPECTIVE: PHOTOREALISTIC FACIAL DIGITIZATION AND MANIPULATION

Hao Li

Communications of the ACM, January 2019, Vol. 62 No. 1 (CACM 2019), 01/2019

[13] 3D HAIR SYNTHESIS USING VOLUMETRIC VARIATIONAL AUTOENCODER

Hao Li, Shunsuke Saito, Liwen Hu

US Provisional Patent (62/775301), filed 12/2018

[12] REAL-TIME AVATARS USING DYNAMIC TEXTURES

Hao Li, Koki Nagano, Jaewoo Seo, Lingyu Wei, Jens Fursund

US Provisional Patent (62/718285), filed 08/2018

[11] AVATAR DIGITIZATION FROM A SINGLE IMAGE FOR REAL-TIME RENDERING

Hao Li, Liwen Hu, Lingyu Wei, Koki Nagano, Jaewoo Seo, Jens Fursund

US Patent (US18/49243), filed 08/2018

[10] PHOTOREALISTIC FACIAL TEXTURE INFERENCE USING DEEP NEURAL NETWORKS

Shunsuke Saito, Lingyu Wei, Liwen Hu, Hao Li

US Patent (US17/64239), filed 12/2017

[9] ON THE EFFECTS OF BATCH AND WEIGHT NORMALIZATION IN GENERATIVE ADVERSARIAL NETWORKS

Sitao Xiang, Hao Li

arXiv:1704.03971

(arXiv 2017), 04/2017

[8] SEGMENTATION-GUIDED REAL-TIME FACIAL PERFORMANCE CAPTURE

Hao Li, Tianye Li, Shunsuke Saito

US Patent (US15/438551), filed 02/2017

[7] DEEP LEARNING-BASED FACIAL ANIMATION FOR HEAD-MOUNTED DISPLAY

Hao Li, Joseph J. Kim, Kyle Olszewski

US Patent (US15/438546), filed 02/2017

[6] INSPIRING COMPUTER VISION SYSTEM SOLUTIONS

Julian Zilly, Amit Boyarski, Micael Carvalho, Amir Atapour Abarghouei, Konstantinos Amliantis, Aleksandr Krasnov, Massimiliano Mancini, Hernán Gonzalez, Riccardo Spezialetti, Carlos Sampredo Pérez, Hao Li

arXiv:1707.07210

(arXiv 2017 Best ICVSS Reading Group Prize), 07/2017

[5] BREAKING THE BARRIERS TO TRUE AUGMENTED REALITY

Christian Sandor, Martin Fuchs, Alvaro Cassinelli, Hao Li, Richard Newcombe, Goshiro Yamamoto, Steven Feiner
arXiv:1512.05471
(arXiv 2015), 12/2015

[4] REALTIME FACIAL ANIMATION WITH ON-THE-FLY CORRECTIVES

Hao Li, Jihun Yu, Yuting Ye, Chris Bregler
US Patent (US14/141348), filed 08/2012

[3] A METHOD FOR FACIAL ANIMATION

Thibaut Weise, Sofien Bouaziz, Hao Li, Mark Pauly
US Patent (US13/323231), filed 12/2011

[2] DYNAMIC HAIR CAPTURE

Linjie Luo, Hao Li, Thibaut Weise, Sylvain Paris, Mark Pauly, Szymon Rusinkiewicz
Technical Report, Princeton University, 08/2011

[1] FIRST STEPS TOWARD THE AUTOMATIC REGISTRATION OF DEFORMABLE SCANS

Hao Li, Mark Pauly
Technical Report, ETH Zurich, 06/2007

THESES

ANIMATION RECONSTRUCTION OF DEFORMABLE SURFACES

Hao Li
PhD dissertation, ETH Zurich, 11/2010

REKONSTRUKTION FARBIGER OBJEKTE AUS STRUKTURIERT BELEUCHTETEN ANSICHTEN

Hao Li
Diplomarbeit, Universität Karlsruhe (TH), 06/2005

RECONSTRUCTION USING STRUCTURED LIGHT

Hao Li
Studienarbeit, Universität Karlsruhe (TH), 02/2004

FILM CREDITS

Fallout (Pinscreen, Visual Effects)	2024
Berlin (Money Heist) (Pinscreen, VFX Supervisor)	2024
Killer Book Club (Pinscreen, R&D Supervisor)	2023
Manifest Season 4 Part 2 (Pinscreen, AI VFX)	2023
AKA (Pinscreen, R&D Supervisor)	2023
Slumberland (Pinscreen, AI VFX)	2022
Neal Brennan: Blocks (Pinscreen, VFX Supervisor)	2022
Amazon re:MARS Luminaries: Hao Li (Amazon Prime Video, Himself)	2022
The Champion (Pinscreen, AI VFX Supervisor)	2022
Deepfakes and the Fog of Truth (CBSN Originals, Himself)	2021
Free Guy (USC Institute for Creative Technologies, Light Stage Processing Supervisor)	2021
ABC News - Nightline: Deepfakes are Becoming Easier to Make (ABC News, Himself)	2021
Travis - Waving at the Window (Pinscreen, Deepfake VFX)	2021
Travis - Nina's Song (Pinscreen, Deepfake VFX)	2020
Forging the Future - Hyper Intelligence S1 E5 (AI Roker Entertainment, Himself)	2020
Ghost in the Shell - 4K Ultra HD Featurette (Lionsgate, Himself)	2020
iHuman (TFIP, Himself)	2019
The Fifth Estate: The Deepfake (CBC, Himself)	2018

Follow This (BuzzFeed/Netflix, Himself)	2018
Blade Runner 2049 (USC Institute for Creative Technologies, Light Stage Processing Supervisor)	2017
Valerian and the City of a Thousand Planets (Vision & Graphics Lab, Director)	2017
Furious 7 (Weta Digital, Researcher)	2015
The Hobbit: The Battle of the Five Armies (Weta Digital, Researcher)	2014
Noah (ILM, R&D)	2014
Captain America: The Winter Soldier (ILM, R&D)	2014
Snickers - Hungry Face Morph	2013
Star Trek Into Darkness (ILM, R&D)	2013
The Lone Ranger (ILM, R&D)	2013
Pacific Rim (ILM, R&D)	2013
Space Pirate Captain Harlock	2013
G.I. Joe: Retaliation (ILM, R&D)	2012
Maattraan	2012
Yellow	2012
3D Underwater Motion Capture of Dana Vollmer Olympic Gold Medalist	2012

INVITED TALKS

INVEST IN YOUR AI FUTURE

Speaker, Machines Can See Summit 2024, Dubai, 04/2024

AI IN MEDIA AND ENTERTAINMENT

Speaker, NAB Show 2024, Las Vegas, 04/2024

GENERATIVE AI FOR CONTENT PRODUCTION: FROM STORYTELLING TO VFX, AI LIP SYNC & BEYOND

Keynote Speaker, NAB Show 2024 Broadcast Engineering and IT (BEIT), Las Vegas, 04/2024

GEN-AI FOR AVATAR CREATION AND VFX

Invited Talk, University of Tokyo, Tokyo, 04/2024

FOUNDERS PANEL: AI AND ENTREPRENEURSHIP

Speaker, MBZUAI/StartAD IEC Community Engagement, Abu Dhabi, 01/2024

GENERATIVE AI FOR HUMAN SYNTHESIS AND WORLD CAPTURE

Speaker, Fortune Global Forum 2023, AI Immersion: Visit to MBZUAI, Abu Dhabi, 11/2023

Speaker, MBZUAI Stakeholder & Technology Day, Abu Dhabi, 11/2023

Invited Talk, Dubai Police, Dubai, 11/2023

FACING THE FUTURE – IMPLEMENTING AI-POWERED DIGITAL HUMANS ACROSS DISCIPLINES

Speaker, HICSS 2024, Honolulu, 01/2024

VIRTUAL TELEPORTATION INSTEAD OF TRANSPORTATION

Speaker, GITEX GLOBAL 2023, Dubai, 10/2023

AI ARMCHAIR ACTIVATION 1: HOW AI CAN GIVE YOU SUPERPOWERS

Speaker, MBZUAI AI Armchair Activation, Abu Dhabi, 09/2023

UNLEASHING THE POWER OF GENERATIVE AI IN MEDIA AND ENTERTAINMENT

Speaker, AngelsDeck Venture Talks, Virtual, 07/2023

EMPOWERING THE METAVERSE THROUGH GENERATIVE AI

Keynote Speaker, IEEE IWCMC 2023, Marrakesh, 06/2023

CONTROLLABLE GENERATIVE AI FOR THE METAVERSE AND VFX

Keynote Speaker, VFXRIO Live 2023, Rio de Janeiro, 06/2023

Invited Talk, Waseda University, Tokyo, 06/2023
Speaker, Machines Can See Summit 2023, Dubai, 05/2023

ENABLING THE METAVERSE WITH 3D VISION AND GENERATIVE AI

Invited Talk, NTU High Performance and Scientific Computing Center, National Taiwan University, Taipei, 05/2023

COMMERCIALIZING AI: APPLICATIONS IN TECH, INDUSTRY, AND BUSINESS

Speaker, A Deepfake Future: Protecting National Security and Democracy in an Increasingly Synthetic World, Ottawa, 05/2023

DISTORTING REALITY USING GENERATIVE AI – THE FUTURE OF COMMUNICATION AND CONTENT

Speaker, OMG 2023 The Road to COP28, Dubai, 05/2023

HOW AI CAN UNLOCK THE METAVERSE AND THE FUTURE OF EDUCATION

Keynote Speaker, Chief Future Officer Forum, Dubai, 05/2023

TELEPORTATION INSTEAD OF TRANSPORTATION

Speaker, MBZUAI Board of Trustees Meeting (with H.E. Dr. Sultan Ahmed Al Jaber), Abu Dhabi, 04/2023

BUILDING A MORE SUSTAINABLE WORLD THROUGH THE METAVERSE

Speaker, Zayed Sustainability Prize, Voices of Sustainability Fireside Chat Series, Abu Dhabi, 02/2023

DIGITAL HUMAN EVOLUTION: FROM 3D GRAPHICS TO AI SYNTHESIS

Speaker, K-Meta: Pinscreen's Digital Human Workshop 2022, Virtual, 12/2022

IMMERSIVE PRESENCE FOR THE METAVERSE

Speaker, MBZUAI Outreach Program 2022, Abu Dhabi, 11/2022

Speaker, GITEX GLOBAL 2022, Dubai, 10/2022

AI SYNTHESIS FOR METAVERSE CAPABILITIES & NEXTGEN AI VFX

Keynote Speaker, Pacific Graphics 2022, Kyoto, 10/2022

Invited Talk, Visual Computing and AI Department, Max-Planck-Institut für Informatik, Saarbrücken, 09/2022

Speaker, Human-Centered AI Conference 2022, Los Angeles, 09/2022

Speaker, VinAI Research Seminar, Ho Chi Minh City, 9/2022

Speaker, Global Metaverse Conference & ROK-ASEAN Forum 2022, Busan, 8/2022

Keynote Speaker, ICVSS 2017 International Computer Vision Summer School, Sicily, 7/2022

THE CHAMPION: NEURAL RENDER CASE STUDY MEET & GREET

Speaker, Birds of Feather, SIGGRAPH 2022, Vancouver, 07/2022

DEEPPAKES – PURE EVIL OR ALSO AN OPPORTUNITY?

Speaker, re:publica 2022, Berlin, 06/2022

DON'T GET LOST IN TRANSLATION: THE NEURAL RENDERING OF THE CHAMPION

Speaker, FMX 2022, Stuttgart, 05/2022

AUGMENTED & VIRTUAL REALITY: STATE-OF-THE-ART & FUTURE PERSPECTIVES

Invited Talk, Center for Higher Defense Studies (Centro Alti Studi Difesa), Italian Defense Joint Institution, Rome, 05/2022

TELEPORTING OURSELVES INTO THE METAVERSE

Speaker, Stanford HAI Workshop on Simulation and Embodied AI 2022, Stanford, 04/2022

MAD: METAVERSE AUGMENTATION FOR DEFENSE

Speaker, DARPA Home Day Briefing 2022, Arlington, 11/2022

Speaker, DARPA ISAT Spring Conference 2022, Virtual, 04/2022

STYLEGAN-BASED 3D AVATAR SYNTHESIS

Speaker, Dagstuhl Seminar 2022 3D Morphable Models and Beyond, Wadern, 03/2022

DIGITIZING 3D HUMANS: FROM GEOMETRIC CAPTURE TO NEURAL SYNTHESIS

Speaker, VIZBI 2022, Los Angeles, 03/2022

AI SYNTHESIS FOR THE METAVERSE: FROM AVATARS TO 3D SCENES

Speaker, CMU Tech & Entrepreneurship ML Seminar, Pittsburgh, 04/2022

Speaker, Synthetic Futures Livestream Event Feb 2022, Virtual, 02/2022

Invited Talk, MBZUAI Research Talks, Mohamed Bin Zayed University of Artificial Intelligence, Abu Dhabi, 02/2022

MOTION STYLOMETRY FOR DEEPFAKE DETECTION

Speaker, DARPA SemaFor PI Meeting #3, Arlington, 01/2022

ENABLING THE METAVERSE WITH AI-DRIVEN 3D AVATARS

Keynote Speaker, Global Metaverse Conference 2021, Seoul, 12/2021

Speaker, AWE 2021, Santa Clara, 11/2021

Speaker, 2021 Y-Base AI Symposium: What You Need to Know About The Metaverse, Virtual, 10/2021

Speaker, KoVRA Global Advanced Technology Training Workshop 2021 (Part 1), Virtual, 10/2021

Invited Talk, Krafton, Virtual, 08/2021

AI SYNTHESIS: FROM AVATARS TO 3D SCENES

Speaker, KAIST SoC Colloquium 2021, Korea Advanced Institute of Science and Technology, Daejeon, 12/2021

Speaker, Seminar on 3D Geometry & Vision, Virtual, 10/2021

Speaker, Distinguished Virtual Seminar, Max Planck Institute for Intelligent Systems, Tübingen, 07/2021

Keynote Speaker, The 3rd CVPR Workshop on Dynamic Scene Reconstruction, Virtual, 06/2021

ENABLING THE METAVERSE WITH 3D DEEP LEARNING

Speaker, KoVRA Global Advanced Technology Training Workshop 2021 (Part 2), Virtual, 12/2021

DEEPFAKE PRODUCTION: TECHNOLOGY, DETECTION, POTENTIAL

Speaker, Deepfake Video Project Huddle, The University of Sydney, Sydney, 10/2021

THE FASHION INDUSTRY COULD BE THE KILLER APP FOR DIGITAL HUMANS

Speaker, View Conference 2021, Featured Sessions, Torino, 10/2021

FACING FORWARD

Speaker, Pacific Graphics 2021, Featured Sessions, Wellington, 10/2021

BEYOND TERRORISM, CYBER, AND PANDEMICS: WHAT'S NEXT?

Speaker, Singapore Defense Technology Summit, Singapore, 10/2021

APPLICATIONS IN AI: DEEPFAKES

Speaker, McKinsey & Company T-30 Summit 2021, Carmel, 09/2021

UNPACKING DEEPFAKES - CREATION AND DISSEMINATION OF DEEPFAKES

Speaker, Global Media Congress 2022, Abu Dhabi, 11/2022

Keynote Speaker, Academy of International Affairs: The Geopolitics of Disinformation 2022, Bonn, 08/2022

Invited Talk, Princeton University, Princeton, 04/2022

Invited Talk, Singapore Defense Science & Technology Agency, Virtual, 09/2021

Speaker, United Nations Institute for Disarmament Research: the 2021 Innovations Dialogue, Geneva, 08/2021

BE YOURSELF. OR NOT.

Speaker, Virtual L'OréalCon 2021, Virtual, 06/2021

MASTERCLASS: RISKS AND OPPORTUNITIES OF DEEPPAKES

Speaker, 50th St. Gallen Symposium, St. Gallen, 05/2021

MOTION STYLOMETRY FOR AI-SYNTHESIZED MEDIA

Speaker, DARPA SemaFor PI Meeting #2, Arlington, 05/2021

AI-GENERATED DIGITAL HUMANS

Speaker, TikTok Lecture Series, ByteDance, Virtual, 05/2021

Speaker, FMX 2021, Stuttgart, 05/2021

Speaker, Data Science Hour, Ericsson Research, Santa Clara, 4/2021

Speaker, TUM AI Lecture Series 2021, Munich, 4/2021

Keynote Speaker, SimAUD 2021 Human+, Los Angeles, 4/2021

Keynote Speaker, VFXRIO Live 2021, Rio de Janeiro, 3/2021

DIGITAL HUMANS FOR DIGITAL TWINS

Speaker, Nvidia GTC 2021, Virtual, 4/2021

AR/VR – WILL IT BE MAINSTREAM? WHEN?

Speaker, McKinsey & Company AI & Disruption 2.0 Series 2021, Virtual, 02/2021

INSIDE DEEPPAKES

Speaker, Fair Media Council Fast Chat LIVE, Virtual, 02/2021

MEDIA FORENSICS: WHAT THE DEEP FAKE?

Speaker, USC Sidney Harman Academy for Polymathic Study, University of Southern California, Los Angeles, 01/2021

MAKING AVATARS AND VOLUMETRIC TELEPORTATION ACCESSIBLE USING 3D DEEP LEARNING

Keynote Speaker, IEEE WACV 2021, Waikoloa, 01/2021

Speaker, HKUCS Computer Vision Lab Virtual Workshop Series, University of Hong Kong, Hong Kong, 01/2021

DIGITAL HUMANS ARE BACK! CREATING AND USING BELIEVABLE AVATARS IN THE AGE OF COVID

Speaker, SIGGRAPH Asia 2020, Featured Sessions, Virtual, 12/2020

THE DANGER OF DEEPPAKES

Speaker, Web Summit 2020, Lisbon, 12/2020

Invited Talk, University of Virginia, Charlottesville, 10/2020

VIRTUAL CONNECTIVITY AND AVATARS IN A POST-PANDEMIC WORLD

Keynote Speaker, Future Summit 2020, Virtual, 11/2020

Speaker, Digital DNA 2020 Summit, Virtual, 11/2020

Speaker, Brand Week Istanbul 2020, Istanbul, 11/2020

Keynote Speaker, Infinity Festival 2020, Los Angeles, 11/2020

Speaker, Couch Lesson: AI + Reality, Goethe Institut, Virtual, 10/2020

Speaker, 4th Global Programmers' Festival 2020, Xi'an, 10/2020

Keynote Speaker, CSIRO Symposium: The Future of Meetings, Sydney, 09/2020

Keynote Speaker, McKinsey Artificial Intelligence Webinar, Redwood City, 09/2020

Keynote Speaker, 2nd ECCV Workshop on Sensing, Understanding, and Synthesizing Humans, Glasgow, 08/2020

DATA, DEEP FAKES, FAKE NEWS – THE FUTURE

Speaker, The Now! Fest 2020, Virtual, 09/2020

AI-SYNTHESIZED HUMANS: OPPORTUNITY & THREAT

Speaker, Annual Congressional European Parliamentary Initiative 2020, Washington D.C., 09/2020

VIRTUAL AVATARS AND VOLUMETRIC TELEPORTATION

Keynote Speaker, ECCV Workshop on Shape Recovery from Partial Textured 3D Scans, Glasgow, 08/2020

DEEPPAKES AND STYLOMETRY FOR DETECTION AND ATTRIBUTION

Speaker, DARPA SemaFor Kickoff Meeting 2020, Arlington, 08/2020

DEEPPAKES & FACIAL STYLOMETRY

Speaker, DARPA SemaFor Internal Kickoff Meeting 2020, Berkeley, 08/2020

ETHICAL CONSIDERATIONS IN SOFTWARE PROJECTS

Speaker, University of Queensland, Brisbane, 07/2020

FYC: AN A.I. EXPERIMENT

Speaker, Zoom Virtual Beings Summit 2020, San Francisco, 07/2020

HUMAN DIGITIZATION IN A POST-COVID-19 WORLD

Keynote Speaker, CVPR Workshop on Media Forensics, Seattle, 06/2020

Speaker, RealTime Conference 2020, New York, 06/2020

OUR NEW ALGORITHMIC WORLD ORDER: COVID-19, SURVEILLANCE & END OF TRUTH

Speaker, Hot Docs Big Ideas Conversation, Toronto, 05/2020

FROM #SOCIALDISTANCING TO #CONNECTINGVIRTUALLY

Speaker, Amazon Virtual Humans Workshop, Seattle, 04/2020

DEEPPAKES AND APPLICATIONS IN E-COMMERCE

Speaker, McKinsey & Company NWDS 2020, San Francisco, 03/2020

AI-DRIVEN COMPLETE HUMAN DIGITIZATION AND PERFORMANCE CAPTURE

Speaker, ONR HPT&E Technical Review: Warrior Resilience 2020, Orlando Science Center, Orlando, 02/2020

DEEPPAKES: DO NOT BELIEVE WHAT YOU SEE

Speaker, World Economic Forum: Annual Meeting 2020, Davos, 01/2020

DIGITAL HUMANS & DEEP FAKES

Keynote Speaker, VFXRIO 2019, Rio de Janeiro, 11/2019

AI-DRIVEN HUMAN AND CONTENT DIGITIZATION

Speaker, Amazon Research Days 2019, Los Angeles, 11/2019

Keynote Speaker, Infinity Festival 2019, Los Angeles, 11/2019

Speaker, USC Viterbi Grand Challenge Scholars Lecture Series, Los Angeles, 11/2019

Speaker, USC Viterbi Computer Science Advisory Board Meeting, Los Angeles, 11/2019

Keynote Speaker, 10th International Workshop on Human Behaviour Understanding, ICCV 2019, Seoul, 10/2019

Speaker, 3rd Global Programmers' Festival 2019, Xi'an, 10/2019

Invited Talk, GAMES (Graphics And Mixed Environment Symposium) Webinar, Los Angeles, 10/2019

Invited Talk, MIT Computer Vision Seminar, Massachusetts Institute of Technology, Cambridge, 09/2019

AI-DRIVEN 3D SHAPE AND MOTION SYNTHESIS

Speaker, UARC Technical Advisory Board Meeting 2019, Los Angeles, 11/2019

IS THAT REAL? DEEPPAKES AND TRUSTED CONTENT

Speaker, NAB Show 2019, New York, 10/2019

AI-BASED TELEPORTATION

Speaker, Second CONIX Annual Review 2019, Carnegie Mellon University, Pittsburgh, 10/2019

COMPLETE HUMAN DIGITIZATION USING PIXEL-ALIGNED IMPLICIT FUNCTIONS

Speaker, ONR HPT&E Technical Review and S&T Expo, Quantico US Marine Corps Base, Stafford County, 09/2019

REIMAGINING INNOVATION IN ERA OF AI: FROM VIRTUAL BEINGS TO DEEPPAKES

Speaker, MIT Technology Review EmTech 2019, Cambridge, 09/2019

CONNECTING 3D SHAPES AND 2D IMAGES USING AI AND DIFFERENTIABLE RENDERING

Speaker, Scenes from Video IV, San Bernardo, 09/2019

DESIGNING A HUMAN-CENTERED FUTURE

Speaker, World Economic Forum: Annual Meeting of the New Champions, Dalian, 07/2019

AI AND HUMAN DIGITIZATION: WHEN SEEING IS NOT BELIEVING?

Speaker, DARPA ISAT Summer Conference 2019, Woods Hole, 08/2019

Speaker, Virtual Beings Summit, San Francisco, 07/2019

Speaker, World Economic Forum: Technology Pioneers Welcome Reception & Dinner, Dalian, 07/2019

Speaker, CVPR Workshop on 3D Humans 2019, Long Beach, 06/2019

Speaker, Refactor Camp 2019, Santa Monica, 06/2019

Keynote Speaker, Vivid Sydney 2019, Sydney, 06/2019

Invited Talk, The University of New South Wales, Sydney, 06/2019

Speaker, Naval Postgraduate School, MOVES Institute, Monterey, 05/2019

Speaker, ICSF Robotics & AI in Extreme Environments, ARL West, Los Angeles, 03/2019

Speaker, DARPA MediFor PI Meeting 2019, DARPA Conference Center, Arlington, 02/2019

Speaker, MIT Technology Review EmTech Asia 2019, Singapore, 01/2019

Keynote Speaker, DISRUPT.SYDNEY 2018, Sydney, 09/2018

Speaker, IET EngTalks, London, 09/2018

PINSREEN/USC/ICT OR: HOW I LEARNED TO STOP WORRYING AND LOVE 3 JOBS

Speaker, CMIC Workshop 2019, Computational Media Innovation Centre, Victoria University, Wellington, 04/2019

COMPLETE 3D HUMAN DIGITIZATION

Speaker, ONR HPT&E Technical Review: Warrior Resilience 2019, Orlando Science Center, Orlando, 02/2019

PHOTOREALISTIC HUMAN DIGITIZATION AND RENDERING USING DEEP LEARNING

Speaker, Softbank Open Innovation The Second BBM Summit 2018, Hakodate, 12/2018

Invited Talk, Sony Corporation, Tokyo, 12/2018

Invited Talk, Waseda University, Tokyo, 12/2018

Keynote Speaker, VRST 2018, Tokyo, 12/2018

Invited Talk, Dreamscape Immersive, Los Angeles, 08/2018

Invited Talk, Amazon, Seattle, 08/2018

Speaker, US Army TRADOC Workshop 2018, Los Angeles, 08/2018

Speaker, Machine Learning for 3D Understanding, TUM Institute for Advanced Study, Munich, 07/2018

Speaker, Sixth International Workshop on Computer Vision 2018, Modena, 05/2018

Keynote Speaker, CMS Meeting of the Minds, Caltech, Pasadena, 05/2018

THE FUTURE OF MIXED REALITY

Speaker, First CONIX Annual Review 2018, Carnegie Mellon University, Pittsburgh, 09/2018

3D AVATARS, VIRTUAL REALITY, AND DEEP LEARNING

Speaker, USC London Delegation Trip 2018, London, 02/2018

THE FUTURE OF FAKE NEWS

Speaker, World Congress of Science and Factual Producers, San Francisco, 12/2017

VIRTUAL AVATAR CREATION USING DEEP LEARNING

Speaker, SIGGRAPH Asia Symposium on AR and VR 2017, Bangkok, 12/2017

DIGITAL HUMAN TELEPORTATION USING DEEP LEARNING

Speaker, USC Viterbi Corporate Advisory Board Meeting, Los Angeles, 04/2018

Keynote Speaker, CVMP 2017, London, 11/2017

Speaker, Sony US Research Center, San Jose, 11/2017

Keynote Speaker, SoftBank Ventures Forum 2017, Seoul, 10/2017

Speaker, USC China Miniforum, Los Angeles, 9/2017

Speaker, SCA 2017 Symposium on Computer Animation, Los Angeles, 7/2017

Keynote Speaker, ICVSS 2017 International Computer Vision Summer School, Sicily, 7/2017

Keynote Speaker, ACM SIGGRAPH Taipei Chapter Computer Graphics Workshop 2017, Taichung, 6/2017

Keynote Speaker, S3PM 2017 International Convention on Shape, Solid, Structure, & Physical Modeling, Berkeley, 6/2017

Speaker, FMX 2017, Stuttgart, 05/2017

Invited Talk, Ochanomizu University, Tokyo, 2/2017

AVATAR DIGITIZATION AND IMMERSIVE COMMUNICATION USING DEEP LEARNING

Speaker, UARC Technical Advisory Board Meeting 2017, Los Angeles, 09/2017

CAPTURE, RENDERING, AND DISPLAY FOR VIRTUAL HUMANS

Speaker, UARC ICT Mission Projects 2017, Los Angeles, 02/2017

LEARNING CORRESPONDENCES BETWEEN CLOTHED HUMAN SHAPES

Speaker, ECCV Workshop on Geometry Meets Deep Learning 2016, Amsterdam, 10/2016

MARKERLESS MOTION CAPTURE

Speaker, Human Performance, Training & Education Tech Review, Quantico US Marine Corps Base, Stafford County, 10/2016

REAL-TIME FACIAL MOTION CAPTURE AND ITS APPLICATIONS

Speaker, 4th Huawei Smart Device Summit on Multimedia Technology, Shenzhen, 09/2016

DEMOCRATIZING HUMAN DIGITIZATION

Invited talk, Nickelodeon Animation Studio, Burbank, 02/2017

Keynote Speaker, SIGGRAPH Asia Workshop on Virtual Reality Meets Physical Reality 2016, Macao, 12/2016

Speaker, The Real Deal @ USC, Los Angeles, 11/2016

Speaker, TEDxHollywood, Los Angeles, 09/2016

DEEP LEARNING: A NEW TOOL FOR CONTENT CREATION AND GAME DESIGN

Speaker, SIGGRAPH 2016 Special Session, Open Problems in Real-Time Rendering, Anaheim, 07/2016

TÊTE-À-TÊTE IN CYBERSPACE

Speaker, Fifth International Workshop on Computer Vision 2016, Lecce, 05/2016

DIGITIZING HUMANS INTO VR USING DEEP LEARNING

Speaker, REAL 2016, San Francisco, 3/2016

Speaker, NVidia Deep Learning Workshop, Los Angeles, 02/2016

MARKERLESS PERFORMANCE CAPTURE FOR AUTOMATED FUNCTIONAL MOVEMENT SYSTEM

Speaker, Warrior Resilience Tech Review, Office of Naval Research, Arlington, 02/2016

BRIDGING PHYSICAL AND DIGITAL WORLDS

Speaker, 16th KOCSEA Technical Symposium 2015, Harvey Mudd College, Claremont, 12/2015

Speaker, SLUSH Conference 2015, Helsinki, 11/2015

Speaker, USC Global Conference 2015, Shanghai, 10/2015

HUMAN DIGITIZATION AND FACIAL PERFORMANCE CAPTURE FOR SOCIAL INTERACTIONS IN VR

Speaker, VRLA Winter Expo, Los Angeles, 01/2016

Invited Talk, Google, Seattle, 10/2015

Invited Talk, Disney Consumer Products, Glendale, 07/2015

Invited Talk, MIT Computer Graphics Group, Massachusetts Institute of Technology, Cambridge, 06/2015

SOCIAL INTERACTION IN CYBERSPACE

Speaker, SLUSH Future Brunch, No Name Club, Los Angeles, 05/2015

DATA-DRIVEN HAIRSTYLING

Speaker, Workshop on Functoriality in Geometric Data 2015, HKUST IAS, Hong Kong, 04/2015

IMMERSIVE TELEPRESENCE WITH 3D SENSING AND VR HMD

Speaker, USC Integrated Media Systems Center Retreat 2015, Los Angeles, 04/2015

DEMOCRATIZING 3D HUMAN CAPTURE: GETTING HAIRY!

Invited Talk, Google, Mountain View, 09/2015

Speaker, Rotary Club, Santa Monica, 09/2015

Invited Talk, Intel, Santa Clara, 06/2015

Invited Talk, Apple, Cupertino, 05/2015

IST Lunch Bunch, Caltech, Pasadena, 05/2015

Invited Talk, SnapChat, Venice, 04/2015

Speaker, LA ACM SIGGRAPH Innovative Research in Computer Graphics at USC and ICT, Los Angeles, 03/2015

Keynote Speaker, International Conference on 3D Vision, Tokyo, 12/2014

Keynote Speaker, ACM SIGGRAPH Conference on Motion in Games 2014, Los Angeles, 11/2014

THE FUTURE OF EXPERIENCING REALITY

Speaker, New York Global Conversation 2014, New York, 10/2014

ON THE FUTURE OF DIGITAL CHARACTERS

Keynote Speaker, Vivid Sydney 2014, Sydney, 06/2014

HUMAN CAPTURE WITH DEPTH SENSORS

Keynote Speaker, Making Augmented Reality Real, NAIST, Nara 08/2014

Invited Talk, Victoria University, Wellington, 07/2014

Chalk Talk, Weta Digital, Wellington, 07/2014

Invited Talk, Pelican Imaging Corporation, Mountain View, 05/2014

3D SELFIES!

Speaker, Depth Camera Birds of Feather, SIGGRAPH 2014, Vancouver, 08/2014

Speaker, FMX 2014, Stuttgart, 04/2014

DEMOCRATIZING 3D SCANNING FOR 3D PRINTING

Speaker, USC Trustee Conference, La Quinta, 03/2014

3D HUMAN CAPTURE: FROM VFX TO THE MAINSTREAM

Speaker, Interactive Media Forum, USC's School of Cinematic Arts, Los Angeles, 04/2014

Speaker, CESASC 52nd Annual Convention, San Gabriel, 04/2014

Invited Talk, University of California, Santa Barbara, 02/2014

HOW DEPTH SENSING TECHNOLOGY WILL CHANGE US

Speaker, Tech Plus Forum (tech+), Seoul, 11/2013

DEMOCRATIZING HUMAN CAPTURE

TR35 Talk, MIT Technology EmTech 2013, Cambridge, 10/2013

3D HUMAN CAPTURE FOR EVERYONE

Speaker, USC Board of Trustees Meeting (with Steven Spielberg), Los Angeles, 12/2013

Invited Talk, SIAT Chinese Academy of Sciences, Shenzhen, 11/2013

Invited Talk, Harvard University, Cambridge, 10/2013

LOW-IMPACT HUMAN DIGITIZATION AND PERFORMANCE CAPTURE

Invited Talk, Dreamworks Animation, Glendale, 08/2013

DIGITIZING HUMANS IN MOTION FROM A GEOMETRIC PERSPECTIVE

3D Imaging and Computing 2012, National Chiao Tung University, Hsinchu, 12/2012

DYNAMIC SHAPE RECONSTRUCTION AND TRACKING

R&D Forum, Industrial Light & Magic, Letterman Digital Arts Center, San Francisco, 04/2012

GEOMETRIC CAPTURE OF HUMAN PERFORMANCES

Faculty Candidate Seminars, Department of Computer Science, Columbia University, New York, 03/2012

Guest Presentation, Rhythm & Hues Studios, Los Angeles, 03/2012

Chalk Talk, Digital Domain, Venice, 03/2012

CS Colloquium Series, Computer Science Department, University of Southern California, Los Angeles, 03/2012

MAYA FOR GRAPHICS SCIENTISTS

Invited Talk, Princeton Computer Graphics Group, Princeton University, New Jersey, 02/2012

TRACKING DEFORMABLE SURFACES

Computer Graphics Reading Group, University of Pennsylvania, Philadelphia, 01/2012

CAPTURING 3D ANIMATION FOR ENTERTAINMENT AND SCIENCES

CVGC Seminar, Columbia Computer Graphics Group, Columbia University, New York, 12/2011

DYNAMIC SHAPE CAPTURE WITH APPLICATIONS IN ART AND SCIENCES

Invited Talk, Microsoft, Redmond, 11/2011

NON-RIGID REGISTRATION IN ENTERTAINMENT AND SCIENCE

Invited Talk, Department for Perceiving Systems, Max-Planck-Institut für Intelligente Systeme, Tübingen, 09/2011

HUMAN BODIES, FACES, AND HAIR

Guest Lecture, Courant Institute of Mathematical Sciences, New York University, New York, 09/2011

ROBUST NON-RIGID 3D ALIGNMENT AND APPLICATIONS

R&D Seminar, Vision Technologies, SRI International/Sarnoff Corporation, New Jersey, 07/2011

CAPTURE, RECONSTRUCT, TRACK, RIG, RETARGET!

Invited Talk, Princeton Computer Graphics Group, Princeton University, New Jersey, 08/2010

INVERSE ENGINEERING DYNAMIC SHAPES FOR COMPUTER ANIMATION

Invited Talk, Courant Institute of Mathematical Sciences, New York University, New York, 08/2010

ANIMATION RECONSTRUCTION

Invited Talk, Columbia Computer Graphics Group, Columbia University, New York, 08/2010

GENERATING BLENDSHAPES FROM EXAMPLES AND CAPTURING WATERTIGHT HUMAN PERFORMANCES

R&D Seminar, Industrial Light & Magic, Letterman Digital Arts Center, San Francisco, 08/2010

A PRACTICAL FACIAL ANIMATION SYSTEM: FROM CAPTURE TO RETARGETING

Research Seminar, Pixar Animation Studios, Emeryville, 08/2010

ART-DIRECTABLE AND DATA-DRIVEN FACIAL ANIMATION

Invited Talk, Institute of Animation, Visual Effects and Digital Postproduction, Filmakademie Baden-Württemberg, Ludwigsburg, 05/2010

ROBUST RECONSTRUCTION OF DYNAMIC SHAPES AND REAL-TIME FACIAL ANIMATION

Invited Talk, Institute for Creative Technologies, University of Southern California, Marina del Rey, 11/2009

DEFORMING GEOMETRY RECONSTRUCTION AND LIVE FACIAL PUPPETRY

R&D Seminar, Industrial Light & Magic, Letterman Digital Arts Center, San Francisco, 10/2009

ANIMATION RECONSTRUCTION FROM A SINGLE-VIEW

Invited Talk, Computer Graphics Department, Max-Planck-Institut für Informatik, Saarbrücken, 05/2009

ACTIVE SHAPE ACQUISITION: FROM IMAGES TO 3-D SURFACES

Invited Talk, Graduate School of Global Information and Telecommunication Studies, Waseda University, Tokyo, 06/2006

3D SCANNING FOR EVERYONE

Ninth SIAM Conference on Geometric Design and Computing (SIAM-GD'05), Phoenix, Arizona, 10/2005

SURFACE RECONSTRUCTION USING COLORED STRIPE PROJECTIONS

Graphics Lunch Seminar, Computer Graphics Laboratory, ETH Zurich, 09/2005

REKONSTRUKTION MIT STRUKTURIERTEM LICHT

First Status Report Meeting of the Institute for Scientific Computing and Mathematical Modeling, Universität Karlsruhe (TH), 04/2005

SOFTWARE & DATASETS

Expo Dubai Xplorer

<https://apps.apple.com/app/expo-xplorer/id1584208919>

The official multi-player metaverse experience for the world expo 2020 in Dubai developed by Magnopus and Pinscreen. Users can digitize their own AI-powered avatars and connect with others in real-time across the largest AR/VR experience deployed in the world with an interactive digital twin of the 4.38km² Expo site.

Pinscreen

<http://www.pinscreen.com>

A mobile app that allows anyone to instantly create a 3D avatar by uploading a selfie or an arbitrary 2D photograph. The avatar can then be animated using the phone camera and produce AR selfie content or Animojis. The software can be downloaded from Apple's App Store and has been developed by the entire Pinscreen team.

USC-HairSalon

A large publicly accessible 3D hairstyle database for hair capture, modeling, simulation, and rendering research. This data collection is also a great resource for benchmark and evaluation purposes. My co-authors are Liwen Hu, Chongyang Ma, and Linjie Luo.

Shapify.me

<http://www.shapify.me>

A free application for creating 3D self-portraits directly using Microsoft's Kinect sensor. A person rotates in front of the sensor and the software automatically produces a complete textured digital model of the person. The 3D model can be uploaded to a server and 3D printed. My co-authors are E. Vouga, A. Gudym, and G. Gusev.

ILM's Monster Mirror

Industrial Light & Magic's proprietary depth sensor-driven real-time facial animation system for instantaneous high fidelity facial performance capture for virtual filmmaking. The calibration-free system sets the current bar for realtime facial tracking accuracy and robustness. I co-developed the software with J. Yu, Y. Ye, and C. Bregler.

BeNTO 3D

<http://www.bento3d.com>

An easy to use geometry processing application created exclusively for Mac. The Cocoa based tool distinguishes from other competitors in that development of additional plugins and GUI extensions are considerably simplified.

faceshift

<http://www.faceshift.com>

A software for real-time and markerless facial performance capture using Microsoft's Kinect sensor. The Qt-based application runs on Mac OS X and Windows 7 and is co-developed with T. Weise and S. Bouaziz. Faceshift has been acquired by Apple Inc. and its technology has been incorporated into the iPhone X.

Artec Studio

<http://www.artec3d.com>

Development of a state-of-the-art geometry processing pipeline for aligning and merging non-rigid 3D scan data.

PROFESSIONAL ACTIVITIES

Co-Curator and Member of the Global Future Councils

World Economic Forum (WEF) - Virtual and Augmented Reality Transformation Maps 2017-2022

Editor

International Journal of Computer Vision Special Issue 2022

Associate Editor

Computer Graphics Forum 2016-2019

Organizer

K-Meta 2022 Workshop: Digital Human Evolution: from 3D Graphics to AI Synthesis, Virtual, 12/2022

Global Media Congress 2022 Workshop: The Evolution of Disinformation, Abu Dhabi, 11/2022

DARPA ISAT Workshop: Metaverse Augmentation for Defense (MAD) 2022, Berkeley, 02/2022

ACM SIGGRAPH Asia 2019 Workshop: Truth in Graphics and the Future of AI-Generated Content, Brisbane, 11/2019

CONIX Mixed Reality Workshop 2018, USC Institute for Creative Technologies, Playa Vista, 08/2018

Program Committee (Computer Graphics)

ACM SIGGRAPH 2015 and 2016

ACM SIGGRAPH Asia 2017 and 2018

ACM SIGGRAPH Asia (E-Tech) 2013, 2014, 2015, and 2016

ACM SIGGRAPH Asia (Courses) 2020

ACM SIGGRAPH Asia (Technical Communications & Posters) 2014, 2015, 2016, and 2021

ACM SIGGRAPH Asia (Symposium in Mobile Graphics and Interactive Applications) 2015

Symposium on Computer Animation 2013, 2014, 2015, 2016, 2017, 2018, and 2019

Symposium on Geometry Processing 2012, 2016, 2017, 2018, and 2019

Eurographics 2014, 2015, and 2016

Eurographics (STAR) 2015

Eurographics (Short Papers) 2013, 2014, and 2015

Pacific Graphics 2012, 2013, 2014, 2015, 2016, 2017, and 2019

Shape Modeling International 2013 and 2017

International Conference on Computer Aided Design and Computer Graphics 2013 and 2015

International Conference on Computer Animation and Social Agents 2014, 2015, and 2016

Program Committee (Computer Vision)

IEEE International Conference on Computer Vision and Pattern Recognition 2017, and 2018

IEEE CVPR Workshop on Morphable Face Models: from Present to Future 2018

International Conference on 3D Vision 2014 and 2015

International Symposium on 3D Data Processing, Visualization and Transmission 2010

Workshop on Non-rigid Shape Analysis and Deformable Image Alignment 2010, 2011, 2012, and 2014

Reviewer

Nature Communications 2020

ACM SIGGRAPH 2008, 2009, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, and 2024
ACM SIGGRAPH Asia 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, and 2023
ACM Transaction on Graphics 2010, 2011, 2013, 2015, 2016, 2017, 2018, and 2019
IEEE International Conference on Computer Vision and Pattern Recognition 2016, 2017, 2018, 2019, 2020, 2021, 2022
International Conference on Computer Vision 2017 and 2019
European Conference on Computer Vision 2016 and 2020
ACM User Interface software and Technology Symposium 2014
Symposium on Computer Animation 2013, 2014, 2015, 2016, 2017, 2018, and 2019
Symposium on Geometry Processing 2007, 2008, 2012, 2016, 2017, 2018, and 2019
ACM Computing Surveys 2021
Eurographics 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2020, and 2023
Computer Graphics Forum 2010, 2011, 2016, 2017, and 2018
International Conference on 3D Vision 2014, 2015, 2017, and 2019
Workshop for Women in Machine Learning 2018
IEEE International Symposium on mixed and Augmented Reality 2015
3D Data Processing, Visualization and Transmission 2010
Non-rigid Shape Analysis and Deformable Image Alignment 2010, 2011, 2012, and 2014
Transactions on Visualization and Computer Graphics 2009, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2021, 2022
Transactions on Pattern Analysis and Machine Intelligence 2007, 2012, and 2017
International Journal of Computer Vision 2015
IEEE Computer Graphics and Applications 2013
International Conference on Computer Animation and Social Agents 2014, 2015, and 2016
EURASIP Journal on Advances in Signal Processing 2011
Graphical Models 2014
Computers & Graphics 2013, 2014, and 2023
Asian Conference on Computer Vision 2010
Pacific Graphics 2009, 2011, 2012, 2013, 2014, 2015, 2016, 2017, and 2019
Vision, Modeling, and Visualization Workshop 2006
Geometric Modeling and Processing 2006
Computer-Aided Design 2013
UAE GSRC 2023

Chair

DARPA ISAT Study 2021: Metaverse Augmentation for Defense (MAD) Chair (Co-Chair: Jaron Lanier, Michael Luby)
DARPA ISAT Virtual Woods Hole 2021, "Cool Stuff" Chair
DARPA ISAT Virtual Woods Hole 2020, "Cool Stuff" Chair
International Conference on 3D Vision 2019 Area Chair
International Conference on 3D Vision 2017 Area Chair
SIGGRAPH Asia 2018 Session Chair
SIGGRAPH Asia 2017 Session Chair
SIGGRAPH 2017 Session Chair
SIGGRAPH 2016 Session Chair
SIGGRAPH 2015 Session Chair
SIGGRAPH Asia (E-Tech) Prize 2013 and 2014
International Conference on 3D Vision 2015 Area Chair

Panels

Judge's Panel for the MCS 2024 – Generative Interior Design Challenge	04/2024
Judge's Panel for the MIT TR 35 Innovators of 2024	03/2024
Swiss National Science Foundation Ambizione Research Proposal	05/2023
Judge's Panel for the MIT TR 35 Innovators of 2023	03/2023
Judge's Panel for ACM SIGGRAPH Asia 2022 Real-Time Live!	08/2022
Judge's Panel for the MIT TR 35 Innovators of 2022	03/2022
Judge's Panel for the MIT TR 35 Innovators of 2021	03/2021
European Research Council Research Proposal	05/2020
Judge's Panel for the MIT TR 35 Innovators of 2020	03/2020
Judge's Panel for the MIT TR 35 Innovators of 2019	03/2019
National Science Foundation (FW-HTF) Research Proposal	07/2018
Judge's Panel for the MIT TR 35 Innovators of 2018	03/2018
Qiu Shi Outstanding Young Scholar Award Selection Committee	05/2017
Judge's Panel for the MIT TR 35 Innovators of 2017	05/2017
European Research Council Research Proposal	12/2016
Judge's Panel for the MIT TR 35 Innovators of 2016	05/2016
European Research Council Research Proposal	12/2015
Judge's Panel for the MIT TR 35 Innovators of 2015	04/2014
Swiss National Science Foundation Research Proposal	12/2014
Judge's Panel for the MIT TR 35 Innovators of 2014	05/2014

Membership

World Economic Forum Global Future Councils	11/2018 - 07/2022
ACM SIGGRAPH	06/2006 - ongoing
IEEE	09/2019 - ongoing
Eurographics Association	08/2011 - ongoing
National Academy of Inventors	05/2017 - ongoing
World Future Society	08/2017 - ongoing

Testimony

Expert Witness (Densys Ltd. v. 3Shape Trios A/S et al.), 03/2021
Senate Committee of the 66th Washington State Legislature (SB 6513: Restricting the use of deepfake audio and visual media in campaigns for elective office), 01/2020
Expert Witness (Rearden LLC et al. v. The Walt Disney Company et al.; Rearden LLC et al. v. Twentieth Century Fox Film Corporation et al.), 09/2018 - 02/2023

BOARD

Tekcapital, Scientific Advisory Board	08/2017
European Conference on Visual Media Production, Scientific Advisory Board	02/2017
Pinscreen Inc., Board of Director	10/2015
Pelican Imaging, Technical Advisory Board	09/2014 - 11/2016

EXTRA ACTIVITIES

MBZUAI AI Quorum: The Future of HCI in the Era of AI	02/2024
DARPA ISAT Summer Conference, San Diego	08/2023
DARPA ISAT Spring Conference, Virtual	04/2022
DARPA ISAT Fall Conference, Virtual	11/2021
SPARKS! Serendipity Forum at Cern 2021	09/2021
DARPA ISAT Virtual Woods Hole, Woods Hole	08/2021
DARPA ISAT Fall Conference, Virtual	11/2020

World Economic Forum, Annual Meeting of the Global Future Councils, Virtual	10/2020
DARPA ISAT Virtual Woods Hole, Woods Hole	08/2020
DARPA ISAT Spring Conference, Arlington	04/2020
World Economic Forum, Annual Meeting, Davos	01/2020
World Economic Forum, Annual Meeting of the Global Future Councils, Dubai	11/2019
DARPA ISAT Summer Conference, Woods Hole	08/2019
World Economic Forum, Annual Meeting of the New Champions, Dalian	07/2019
World Economic Forum, Annual Meeting of the Global Future Councils, Dubai	11/2018
Lucasfilm Training LDAC, Practical & CG Cinematography, San Francisco	08/2009
Credit Suisse Group, Equity Derivatives Workshop, Zurich	03/2008
McKinsey&Company, Business Technology Office's European Seminar, Portugal	05/2007

TECHNICAL SKILLS

Operating Systems

Mac OS X, Linux/Unix, and Windows

Programming Languages

C/C++, Objective C, Python, Java, and HTML/CSS

Professional Tools

Unity, Autodesk Maya, Autodesk 3ds MAX, Pixologic ZBrush, Zeno, Adobe AfterEffects, Adobe Premiere, Adobe Photoshop, and Adobe Illustrator

MILITARY SERVICE

German Federal Armed Forces

11/1999 - 08/2000

Division for Special Operations (DSO) - Airborne Brigade 26

2nd Company of the Antitank Parachute Battalion 262, Merzig, Germany

- German parachutist badge in bronze

REFERENCES

Prof. Dr. Trevor Darrell

Professor of Electrical Engineering and Computer Science

University of California, Berkeley, EECS Department

Email trevor@eecs.berkeley.edu**Home page** <http://people.eecs.berkeley.edu/~trevor/>**Prof. Dr. Leonidas J. Guibas**

Paul Pigott Professor of Computer Science and Electrical Engineering

Stanford University, Computer Science Department

Email guibas@cs.stanford.edu**Home page** <http://geometry.stanford.edu/>**Prof. Dr. Michael J. Black**

Director and Distinguished Amazon Scholar

Max Planck Institute for Intelligent Systems, Perceiving Systems Department

Email black@tuebingen.mpg.de**Home page** <http://ps.is.tue.mpg.de>**Prof. Dr. Steven Seitz**

Robert E. Dinning Professor of Computer Science and Director of Teleportation at Google

University of Washington, Department of Computer Science and Engineering

Email seitz@cs.washington.edu**Home page** <https://www.cs.washington.edu/homes/seitz>

Prof. Dr. Hany Farid

Professor of Electrical Engineering and Computer Science
University of California, Berkeley, EECS Department and School of Information

Email hfarid@berkeley.edu

Home page <https://farid.berkeley.edu>

Prof. Dr. Yaser Ajmal Sheikh

VP at Meta Reality Labs and Associate Professor of Computer Science
Carnegie Mellon University, Robotics Institute

Email yaser@cs.cmu.edu

Home page <http://www.cs.cmu.edu/~yaser/>

Dr. Chris Bregler

Director / Principal Scientist

Google AI

Email bregler@google.com

Home page <http://chris.bregler.com/>

Kim Libreri

Chief Technology Officer

Epic Games

Email available upon request

Home page <http://epicgames.com/>