MIANLUN ZHENG

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EDUCATION

University of Southern California, Los Angeles, USA *August 2018 - Present*
Ph.D candidate in Computer Graphics, GPA: 4.0/4.0
Advisor: Professor Jernej Barbič

Wuhan University, Wuhan, China *September 2015 - June 2018*
Master in Computer Science, GPA: 3.81/4.0
Advisor: Professor Zhiyong Yuan

Wuhan University, Wuhan, China *September 2011 - June 2015*
Bachelor in Computer Science, GPA: 3.69/4.0

PUBLICATIONS

Mianlun Zheng, Bohan Wang, Jingtao Huang, Jernej Barbič. **Simulation of Hand Anatomy Using Medical Imaging**, accepted by SIGGRAPH Asia 2022.

Shihan Lu, Mianlun Zheng, Matthew C. Fontaine, Stefanos Nikolaidis, Heather Culbertson. **Preference-Driven Texture Modeling Through Interactive Generation and Search**, IEEE Transactions on Haptics, doi: 10.1109/TOH.2022.3173935.

Mianlun Zheng, Yi Zhou, Duygu Ceylan, Jernej Barbič. **A Deep Emulator for Secondary Motion of 3D Characters**, CVPR, 2021. (Oral Presentation)

Mianlun Zheng, Danyong Zhao, Jernej Barbič. **Evaluating the Efficiency of Six-DoF Haptic Rendering-Based Virtual Assembly Training**, IEEE Transactions on Haptics, 2020, 14(1): 212-224.

Bohan Wang*, Mianlun Zheng*, Jernej Barbič. **Adjustable Constrained Soft-Tissue Dynamics**, Pacific Graphics 2020 and Computer Graphics Forum, 39(7), 2020. (*equal first authors) (Best paper award of both PG2020 and PG2021).

Qianqian Tong, Zhiyong Yuan, Xiangyun Liao, Mianlun Zheng, *et al.* **Magnetic Levitation Haptic Augmentation for Virtual Tissue Stiffness Perception**. IEEE Transactions on Visualization and Computer Graphics, 2018, 24(12): 3123-3136.

Mianlun Zheng, Zhiyong Yuan, Qianqian Tong, *et al.* **A Novel Unconditionally Stable Explicit Integration Method for Finite Element Method**. Visual Computer, 2018, 34(5):721-733.

Mianlun Zheng, Zhiyong Yuan, Weixu Zhu, *et al.* **A Fast Mass Spring Model Solver for High-resolution Elastic Objects.** Simulation: Transactions of the Society for Modeling and Simulation International, 2017, 93(10): 797-807.

Qianqian Tong, Zhiyong Yuan, Mianlun Zheng, Weixu Zhu, *et al.* **A Novel Magnetic Levitation Haptic Device for Augmentation of Tissue Stiffness Perception**. Proceedings of the 22nd ACM Conference on Virtual Reality Software and Technology. ACM, 2016: 143-152. (Best student paper award).

PATENTS

Interactive Texture Generation and Search System Driven by Human Preference. United States Provisional Patent Application No. 63/184,659, filed 05/06/2021, pending.

Generating Realistic Animations for Digital Animation Characters Utilizing a Generative Adversarial Network and A Hip Motion Prediction Network. US Patent, filed 07/25/2019, pending.

EXPERIENCE

Meta Reality Labs, Pittsburgh, USA — *May 2022 - August 2022*
Research intern
Managers: Dr. Breannan Smith and Dr. Javier Romero
Topic: Loose and dynamic clothing tracking

Meta Reality Labs, Remotely, USA — *May 2021 - August 2021*
Research intern
Manager: Dr. Tuur Styuck
Topic: Human body and clothing simulation

Adobe Research, Remotely, USA — *May 2020 - August 2020*
Research intern
Managers: Dr. Yi Zhou and Dr. Duygu Ceylan
Topic: Physics based animation with machine learning

Tencent America, Los Angeles, USA — *May 2019 - August 2019*
Research intern
Managers: Dr. Bo Yang and Dr. Ming Gao
Topic: Material Point Method with machine learning

Haptics based Virtual Surgery Group, Wuhan, China — *September 2015 - June 2018*
Research assistant
Supervisor: Professor Zhiyong Yuan
Topic: Deformation simulation and haptics in virtual surgery

TEACHING

CSCI 520 Computer Animation and Simulation	*Spring 2022*
CSCI 520 Computer Animation and Simulation	*Spring 2021*
CSCI 520 Computer Animation and Simulation	*Spring 2020*
CSCI 585 Database Systems	*Spring 2019*

REVIEWS

ACM SIGGRAPH/Eurographics — *2020*

AWARDS

2022 Meta PhD Research Fellowship finalist	*2022*
USC Provost Fellowship	*2018-2022*
Wuhan University Scholarship	*2017*
National Scholarship (China)	*2015*

Outstanding Bachelor's Degree Thesis (Hubei Province, China)	*2015*
Wuhan University Merit Student	*2013*
Huang Zhangren Alumni Scholarship	*2013*
National Scholarship (China)	*2012*