

Cheng'an HE

Curriculum Vitae

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Education

- Since 2019 **Yale University, New Haven, USA**
Ph.D. in Computer Science
Advisors: Prof. Julie Dorsey, Prof. Holly Rushmeier
- 2015 - 2019 **Zhejiang University, Hangzhou, China**
B.E. in Computer Science and Technology
Advisor: Prof. Hongzhi Wu
Thesis: *Image-based Reconstruction of High-precision 3D Geometry and Material*

Research Interests

My research interests lie in the area of computer graphics and computer vision, with some previous projects involving 3D reconstruction, reflectance capture, and appearance modeling. Currently, my work focuses on implicit neural representations, which leverages emerging neural representations to solve problems in dynamic scenarios.

Publications

NeMF: Neural Motion Fields for Kinematic Animation

Cheng'an He, Jun Saito, James Zachary, Holly Rushmeier, Yi Zhou
NeurIPS 2022

An Inverse Procedural Modeling Pipeline for SVBRDF Maps

Yiwei Hu, Cheng'an He, Valentin Deschaintre, Julie Dorsey, Holly Rushmeier
ACM Transactions on Graphics (SIGGRAPH 2022), 41(2)

Learning Efficient Illumination Multiplexing for Joint Capture of Reflectance and Shape

Kaizhang Kang, Cihui Xie, Cheng'an He, Mingqi Yi, Minyi Gu, Zimin Chen, Kun Zhou, Hongzhi Wu
ACM Transactions on Graphics (SIGGRAPH Asia 2019), 38(6)

Research Experiences

- Since 2019 **Ph.D. Candidate at Yale Computer Graphics Group, Yale University**
Advisors: Prof. Julie Dorsey, Prof. Holly Rushmeier
Topic: Implicit neural representations for time-varying processes
- 2017 - 2019 **Research Assistant at State Key Lab of CAD&CG, Zhejiang University**
Advisor: Prof. Hongzhi Wu
Topic: Reflectance capture and shape reconstruction
- Summer 2018 **Research Assistant at University of California, Davis**
Advisor: Prof. Michael Neff
Topic: Real-time 3D scene reconstruction

Work Experiences

Summer 2022 **Research Intern at Adobe, San Jose, USA (Remote)**

Mentors: Dr. Yi Zhou, Dr. Fujun Luan, Dr. Tuanfeng Wang, Dr. Xin Sun, Dr. Zhixin Shu

Topic: Parametric model for 3D hair

Summer 2021 **Research Intern at Adobe, San Jose, USA (Remote)**

Mentors: Dr. Yi Zhou, Dr. Jun Saito

Topic: Neural motion fields

Summer 2019 **Research Intern at miHoYo, Shanghai, China**

Mentor: Dr. Jun Xing

Topic: Stylized texture synthesis

Teaching Experiences

Spring 2022 CPSC 276/376: Digital Humanities

Teaching Assistant

Fall 2021 CPSC 446/546: Data and Information Visualization

Teaching Assistant

Selected Awards and Honors

National Scholarship, China Ministry of Education

2018

Scholarship for Academic Excellence, Zhejiang University

2016, 2018

Meritorious Winner, Interdisciplinary Contest in Modeling

2018