

# Yuzhong Huang

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RESEARCH INTERESTS      Scene Reconstruction; Neural 3D Representation; Generative Models

## EDUCATION      **University of Southern California (USC)**

Ph.D. in Computer Science. Advisor: Fred Morstatter.      *Aug 2019 - Dec 2024*  
Thesis: *Semantic Structure in Understanding and Generation of the 3D World*

M.S. in Electrical Engineering.      *Aug 2017 - May 2019*

## **Zhejiang University, China**

B.Eng. in Computer Science.      *Aug 2012 - Jun 2016*

## PUBLICATIONS      **Explaining Human Preferences via Metrics for Structured 3D Reconstruction**

Jack Langerman, Denys Rozumnyi, **Yuzhong Huang**, Dmytro Mishkin  
arXiv 2503.08208

## **OrientDream: Streamlining Text-to-3D Generation with Explicit Orientation Control**

**Yuzhong Huang**, Li Zhong, Chen Zhang, Fred Morstatter, Yu Xi  
ICASSP 2025.

## **PlanarNeRF: Online Learning of Planar Primitives with Neural Radiance Fields**

Zheng Chen, Qingan Yan, Huangying Zhan, Changjiang Cai, Xiangyu Xu, **Yuzhong Huang**, Et al.  
ICRA 2025.

## **The Unequal Opportunities of Large Language Models: Revealing Demographic Bias through Job Recommendations**

Abel Salinas, Parth Vipul Shah, **Yuzhong Huang**, Robert McCormack, Fred Morstatter  
EAAMO 2023.

## **UniPlane: Unified Plane Detection and Reconstruction from Posed Monocular Videos**

**Yuzhong Huang**, Chen Liu, Ji Hou, Ke Huo, Shiyu Dong, Fred Morstatter  
ICASSP 2025.

## **Hybrid Forecasting of Geopolitical Events**

Daniel M Benjamin, Fred Morstatter, **Yuzhong Huang**, Et al.  
AI Magazine

## **Assessing Scientific Research Papers with Knowledge Graphs**

Kexuan Sun, Zhiqiang Qiu, Abel Salinas, **Yuzhong Huang**, Dong-Ho Lee, Daniel Benjamin, Fred Morstatter, Xiang Ren, Kristina Lerman, Jay Pujara  
SIGIR 2022.

### **Learning Where to Cut from Edited Videos**

**Yuzhong Huang**, Xue Bai, Oliver Wang, Fabian Caba, Aseem Agarwala  
CVEU @ ICCV 2021. Work done during Adobe internship.

### **Graph Embedding with Personalized Context Distribution**

**Yuzhong Huang**, Di Huang, Zihao He, Kexuan Sun, Sami Abu-El-Haija, Bryan Perozi, Kristina Lerman, Fred Morstatter, Aram Galstyan  
Oral, DL4G @ WWW 2020.

### **Anchor Attention for Hybrid Crowd Forecasts Aggregation**

**Yuzhong Huang**, Andrés Abeliuk, Fred Morstatter, Pavel Atanasov, Aram Galstyan  
AAMAS 2020

### **Statistical Equity: A Fairness Classification Objective**

Ninareh Mehrabi, **Yuzhong Huang**, Fred Morstatter  
EAAMO 2021.

### **On extended long short-term memory and dependent bidirectional recurrent neural network**

Yuanhang Su, **Yuzhong Huang**, and C.-C. Jay Kuo  
Neurocomputing , 2019, Vol.356, p.151-161

### **Efficient Text Classification Using Tree-structured Multi-linear Principal Component Analysis**

Yuanhang Su, **Yuzhong Huang**, and C.-C. Jay Kuo  
ICPR 2018.

### **InteriorNet: Mega-scale multi-sensor photo-realistic indoor scenes dataset**

Wenbin Li, Sajad Saeedi, John McCormac, Ronald Clark, Dimos Tzoumanikas, Qing Ye, **Yuzhong Huang**, Rui Tang, Stefan Leutenegger  
BMVC 2018.

## EXPERIENCE

### **USM3D**

*Organizer of USM3D Workshop and Competition*

*CVPR 2024, 2025*

### **Hover, Inc**

*Senior Computer Vision Research Engineer*

*Jan 2024 - Present*

- Working on indoor and outdoor scene reconstruction research
- Working on conditional image generation based on text description

### **OPPO US**

*Research Intern*

*May 2023 - Aug 2023*

- Working on text to 3D research.

### **Meta, Inc**

*Research Intern*

*May 2022 - Aug 2022*

- Working on scene reconstruction from posed monocular video.

### **Adobe, Inc**

*Research Intern*

*May 2020 - Aug 2020*

- Working on video understanding and temporal video segmentation

## **Media Communications Lab, USC**

*Student worker*

*Sep 2017 - Jun 2018*

- Propose ELSTM, a variant of LSTM cell with extended memory capacity.
- Propose TMPCA, a tree structure accelerated PCA for text classification.

## **Hangzhou Qunhe Information Technology**

*Software Engineer*

*Jul 2016 - Jul 2017*

- Integrate image super resolution into a CUDA-based GPU renderer engine.
- Propose an albedo map guided image super resolution method to improve texture detail quality.
- Implement steganography in renderer engine for copyright protection.