

# 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 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.  
Arxiv 2401.00871. Work done during OPPO internship

## 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

### 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.