

Yuzhong Huang

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RESEARCH INTERESTS Scene Reconstruction; Neural 3D Representation; Computer Vision

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

Ph.D. in Computer Science. Advisor: Fred Morstatter. *Aug 2019 - Dec 2023*
(Anticipated)

M.S. in Electrical Engineering. Advisor: C.-C. Jay Kuo. *Aug 2017 - May 2019*

Zhejiang University, China

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

Singapore University of Technology and Design, Singapore

Exchange Student *Sep 2014 - Dec 2014*

PUBLICATIONS **SurfaceRecon: 3D Reconstruction with Explicit Surfaces**

Yuzhong Huang, Chen Liu, Fred Morstatter

Under Review for CVPR 2023. Work done during Meta internship.

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

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

Information Sciences Institute, USC

Research Assistant

Jun 2018 - Present

- Propose Anchor Attention, an attention based model for sequence summary. Apply it on forecasts aggregation task, integrate into SAGE project. Implemented with Tensorflow.
- Propose Decomposed Word Embedding by Topic Modeling, an embedding method that use a mixture of topic vectors as word embedding. In-Progress.

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.

Digital Media Computing & Design Lab, Zhejiang University

Member

Dec 2015 - July 2016

- Work on knowledge base population and event extraction.
- Participate in 2017 NIST Text Analysis Conference, Knowledge Base Population Competition. Ranked 3rd out of 7 teams.

Linux User Group, Zhejiang University

Co-founder, maintainer

May 2013 - July 2014

- Setup open source mirror in Zhejiang University.
- Linux system maintenance, upgrade and synchronization.

SKILLS

PyTorch, Tensorflow, Python, C++, Java, Docker, SQL, Cypher