Yuzhong Huang

CONTACT INFORMATION

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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*

PUBLICATIONS

UniPlane: Unified Plane Detection and Reconstruction from Posed Monocular Videos

Yuzhong Huang, Chen Liu, Ji Hou, Ke Huo, Shiyu Dong, Fred Morstatter
Under Review. 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 Perrozi, 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, Python, C++, CUDA, C#, JavaScript, Java, Go, Docker, SQL, Cypher