

YUN CHENG (JOE) WANG

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EDUCATION

University of Southern California Los Angeles, CA
 Ph.D. in Electrical and Computer Engineering, Advisor: Prof. C.-C. Jay Kuo Jan. 2021 - Present
 Anticipated graduation date: **May, 2024**

University of Southern California Los Angeles, CA
 M.S. in Electrical and Computer Engineering, GPA: 4.0/4.0 Aug. 2018 - Dec. 2019
 Selected coursework: Algorithm, Convex Optimization, Multimedia Compression

National Taiwan University Taipei, Taiwan
 B.S. in Electrical Engineering, GPA: 3.8/4.3 Sep. 2014 - Jun. 2018
 Selected coursework: Digital Signal Processing, Machine Learning Foundations.

EXPERIENCE

USC Media Communication Lab (MCL) Los Angeles, CA
 Research Assistant Jan. 2021 - Present

- *Knowledge graph completion*
 - Infer missing information in knowledge graphs based on the observed triples.
 - Develop models that achieves SOTA results in low dimension, i.e. 32 dimensions, on most knowledge graph datasets. The results are comparable with models in high dimensions, i.e. 500 dimensions.
- *Blind image and video quality assessment*
 - Predict mean opinion scores (MOS) for in-the-wild images and user-created videos with no reference.
 - Develop lightweight models (54x smaller) and real-time inference (38ms per image) on the user end.

Academia Sinica Taipei, Taiwan
 Research Assistant Sep. 2020 - Dec. 2020

- Improve word embeddings for Chinese words by incorporating the semantic constituents.
- Leverage structured word definitions in a lexical knowledge base, E-HowNet, which annotates 95K Chinese words, to compose word embeddings using multi-relational graph convolutional networks.

Taboola Inc. Los Angeles, CA
 Data Science Intern Jun. 2019 - Aug. 2019

- Build a large-scale knowledge graph to discover trending topics in daily news articles.
- 5,000 news articles from multiple publishers are injected into the knowledge graphs everyday and the entire pipeline can be run within an hour.

PRESENTATIONS

- Poster “Rule-Guided Knowledge Graph Completion: A Binary Classification Approach” is presented at the 11-th USC ECE research festival, October 2021.
- Invited to talk on “Introduction to Knowledge Graphs: Construction, Embeddings, and Applications” in a seminar for electrical engineering graduate students at NTNU, Taipei, Taiwan, Sep. 2020.

TECHNICAL SKILLS

- **Programming Languages:** Python, C++, Matlab, and SPARQL
- **Software & APIs:** Apache Spark, Neo4j, Git, PyTorch, scikit-learn, XGBoost