

Bin Wang

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University of Southern California, Los Angeles, CA, 90089

EDUCATION

University of Southern California <i>Ph.D. in Electrical Engineering; GPA: 3.9/4.0; Advisor: C.-C. Jay Kuo</i>	Los Angeles, USA <i>Jul 2017 - Present</i>
University of Electronic Science and Technology of China <i>Bachelor in Electronic Information Engineering; GPA: 4.0/4.0; Rank: 2/350</i>	Chengdu, China <i>Sep 2013 - Jun 2017</i>
City University of Hong Kong <i>Exchange Program; Major GPA: 4.3/4.3</i>	Kowloon, HK <i>Sep 2015 - Jan 2016</i>

PROJECT

Word & Sentence Embedding, Media Communication Lab, USC <i>Research Assistant</i> <ul style="list-style-type: none">· Developed two new post-processing technique over word embedding models to incorporate context information· Analyzed the word embedding intrinsic and extrinsic evaluation methods in a more systematic way· Proposed a non-parameteric method for sentence embedding via semantic group construction· Two paper published for our system: <i>ICME2019</i>, <i>APSIPA-TSIP</i>	Los Angeles, USA <i>Aug 2018 - Current</i>
Video Captioning & Summarization, Pratt & Whitney Technologies Corp. <i>Research Assistant</i> <ul style="list-style-type: none">· Applied pretrained <i>CNN</i> model for video feature extraction using <i>Tensorflow</i>· Applied <i>LSTM</i> seq2seq model for captioning generation· Proposed clustering-based method to explore non-parameteric video summarization task· Crawled flight engine videos for dataset augmentation· Achieved 20% improvement on a project-based dataset	Los Angeles, USA <i>Jul 2017 - Aug 2018</i>
Hand Gesture Recognition, Ontario State University <i>Internship; Mentor: Prof. Haoxiang Lang</i> <ul style="list-style-type: none">· Applied hand gesture recognition technique on RGB-Depth real time video· Integrated our system with Kinect Sensore and Turtlebot Robot· One paper publised in <i>Mechatronic Systems and Control</i>	Toronto, Canada <i>Jul 2016 - Oct 2016</i>

SKILLS

- Proficiency in software development in Python, C, C++, Matlab, \LaTeX
- Proficiency in machine learning platforms: PyTorch, Tensorflow, Sklearn, MatConvNet, OpenCV

HONORS AND AWARDS

- GSG Research Travel Grant, USC, 2019
- Excellent Graduate of Sichuan Province, 2017 (top 2% of graduates)
- National Scholarship, China, 2016 (top 2% of undergraduate students)
- Tanglixin Scholarship, 2016 (top 2% of senior students)
- National Scholarship, China, 2015 (top 2% of undergraduate students)
- Samsung Enterprise Scholarship, UESTC, 2015
- Outstanding Student Leadership Award, UESTC, 2014

TEACHING ASSISTANT

- EE141L: Applied Linear Algebra for Engineering, USC, 2019
- EE483: Introduction to Digital Signal Processing, USC, 2018, 2019

PUBLICATION

- **Journal:** Bin Wang*, Angela Wang*, Fenxiao Chen, Yuncheng Wang, and C.-C. Jay Kuo: Evaluating Word Embedding Models: Methods and Experimental Results, *APSIPA Transactions on Signal and Information Processing*, 2019
- **Oral:** Bin Wang, Fenxiao Chen, Angela Wang, and C.-C. Jay Kuo: Post-Processing of Word Representations via Variance Normalization and Dynamic Embedding, *IEEE International Conference on Multimedia and Expo (ICME)*, 2019
- **Oral:** Yeji Shen, Yuhang Song, Hanhan Li, Shahab Kamali, Bin Wang and C.-C. Jay Kuo: K-covers for active learning in image classification, *IEEE International Conference on Multimedia and Expo (ICME) Workshop*, 2019
- **Oral:** Fenxiao Chen, Bin Wang and C.-C. Jay Kuo: Deepwalk-assisted Graph PCA (DGPCA) for language networks, *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2019
- **Poster:** Fenxiao Chen, Bin Wang and C.-C. Jay Kuo: Graph-based Deep-Tree Recursive Neural Network (DTRNN) for Text Classification, *IEEE Spoken Language Technology Workshop (SLT)*, 2018
- **Journal:** Bin Wang, Yunze Li, Haoxiang Lang and Ying Wang: Hand gesture recognition and motion estimation using the Kinect Sensor, *Mechatronic Systems and Control*, 2019