

# Zelun Wang

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## Education

### Texas A&M University

Ph.D. Student in Computer Science, GPA 3.9/4.0

College Station, USA

2014.09–2020.08 (expected)

### Xi'an Jiaotong University

B.Eng. in Automation, GPA 89.0/100

Xi'an, China

2010.09–2014.07

## Work Experiences

### Machine Learning Intern

Facebook, Inc., 2018.06–2018.08

- o Optimized location data Hive pipeline and analyzed crowdsourcing data statistics
- o Developed a location feature weighting schema for Gradient Boosted Decision Tree

### Teaching Assistant

Texas A&M University

- o CSCE 121: Introduction to Program Design (C++)
- o CSCE 462: Microcomputer Systems

## Research Interests

- Machine Learning, Document Analysis, Affective Computing, Computer Vision

## Technical Skills

- **Programming Languages:** PYTHON, JAVA, C++, JAVASCRIPT, PHP
- **Tools:** PYTORCH, MATLAB, ANDROID, LATEX, HIVE, MERCURIAL, GIT

## Publications

- **Z. Wang**, J. Liu, "Translating Math Formula Images to LaTeX Sequences Using Deep Neural Networks with Sequence-level Training", *arXiv preprint arXiv:1908.11415* (2019)
- **Z. Wang**, D. Beyette, J. Lin, J. Liu, "Extraction of Math Expressions from PDF Documents based on Unsupervised Modeling of Fonts", *International Conference on Document Analysis and Recognition*. (2019)
- X. Wang, **Z. Wang**, J. Liu, "Bigram Label Regularization to Reduce Over-Segmentation on Inline Math Detection", *International Conference on Document Analysis and Recognition*. (2019)
- J. Lin, X. Wang, **Z. Wang**, D. Beyette J. Liu, "Prediction of Mathematical Expression Declarations based on Spatial, Semantic, and Syntactic Analysis", *ACM Symposium on Document Engineering*. (Best Student Paper, 2019)
- D. Beyette, **Z. Wang**, J. Lin, J. Liu, "Semi-Automatic LaTeX-Based Labeling of Mathematical Objects in PDF Documents: MOP Data Set", *ACM Symposium on Document Engineering*. (2019)
- D. Beyette, M. Rugh, J. Lin, X. Wang, **Z. Wang**, R. Capraro, J. Liu, "DIME: A Dynamic Interactive Mathematical Expression Tool for STEM Education", *Annual Conference of American Society for Engineering Education*. (2019)

- F. Akbar, A. Bayraktaroglu, P. Buddharaju, D. Silva, G. Gao, T. Grover, R. Gutierrez, N. Jones, G. Mark, I. Pavlidis, K. Storer, **Z. Wang**, A. Wesley, S. Zaman, "Email Makes You Sweat: Examining Email Interruptions and Stress with Thermal Imaging", *Proceedings of Human Factors in Computing Systems*, ACM Press. (2019)
- T Jin, J Zhou, **Z Wang**, R Gutierrez-Osuna, C Ahn, W Hwang, K Park, P Lin, "Real-Time Gas Mixture Analysis Using Mid-Infrared Membrane Microcavities", *Journal of Analytical Chemistry*. (2018)
- **Z Wang**, T Jin, P Lin, R Gutierrez-Osuna, "Mixture quantification in the presence of unknown interferences", *The International Symposium on Olfaction and Electronic Nose*. (2017)
- **Z Wang**, A Parnandi, R Gutierrez-Osuna, "BioPad: Leveraging Off-the-Shelf Video Games for Stress Self-Regulation", *Journal of Biomedical and Health Informatics*. (2017)
- C Liberatore, S Aryal, **Z Wang**, S Polsley, R Gutierrez-Osuna, "SABR: Sparse, Anchor-Based Representation of the Speech Signal", *Sixteenth Annual Conference of the International Speech Communication Association*. (2015)
- **Z Wang**, J Wang, S Zhang, Y Gong, "Visual Tracking based on Online Sparse Feature Learning", *Journal - Image and Vision Computing*. (2015)
- S Zhang, J Wang, **Z Wang**, Y Gong, Y Liu, "Multi-target tracking by learning local-to-global trajectory models", *Journal - Pattern Recognition*. (2014)

## Patents

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- "A multi-target tracking method by iterating trajectory models", CN201410136574, granted Apr. 2014

## Honors and Awards

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<b>ACM DocEng Best Student Paper Award:</b> Berlin, Germany	2019
<b>Undergraduate with University Honors:</b> Xi'an Jiaotong University	2014
<b>National Encouragement Scholarship:</b> Xi'an Jiaotong University	2013, 2012, 2011
<b>Outstanding Student Award:</b> Xi'an Jiaotong University	2013, 2012
<b>Excellent Student Leader Award:</b> Xi'an Jiaotong University	2011