

## Chun-Ta Lu

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### PROFESSIONAL SUMMARY

- 7+ years research experience in Machine Learning, Data Mining, and Social Network Analysis.
- Strong record of publishing research papers in premier conferences: KDD, ICML, CVPR, WSDM and IJCAI.
- Hands-on experience at Google Research.
- Proficient in Python, TensorFlow, C++ and MATLAB.

### PROFESSIONAL EXPERIENCE

*Research Intern, Google Research*

May 2017 – Aug. 2017

**Project:** Neural Graph Machines for Image Content Annotation

- Constructed an End-To-End training/serving pipeline for large-scale binary classifiers built upon Tensorflow and Flume (an internal data-parallel pipeline). It is able to train 17M images annotated with labels spanning over 20K categories within two hours.
- Developed deep semi-supervised neural networks for multi-label image classification.
- Designed and implemented Tensorflow custom Ops for enabling a smooth distribution of embeddings for related instances and/or labels in neural networks.
- Complexity and Technology: 3K lines of Python code and 4K lines of C++ code for production.

*Research Assistant, University of Illinois at Chicago*

May 2013 – Present

**Project:** Supervised Tensor Learning

- Developing tensor factorization techniques for fusing multi-view data in deep neural networks.
- Proposed tensor factorization machines for multi-task multi-view learning (WSDM'17 and ICDM'17), and for exploring relational structures in multi-view data (WWW'18).
- Designed multi-way kernel models for neuroimaging classification (CVPR'17 and ICML'17).

**Project:** Clustering and Community Detection

- Proposed a novel algorithm for jointly detecting community and structural holes in social networks (KDD'16), and applied it to brain network analysis (KDD'17 and ICDM'17).
- Developed multi-view clustering and feature selection from heterogeneous sources (ICDM'16).

**Project:** Heterogeneous Network Mining

- Connected online stores with social networks for personalized product recommendation via collective matrix factorization with graph regularization (IJCAI'16).
- Proposed novel methods for identifying e-commerce customers in social networks (CIKM'14).
- Provided insights into the effects of social media on crowdfunding (WSDM'14).

*Quantitative Analyst Intern, Google*

Jun. 2014 – Aug. 2014

- Analyzed the correlations between the signals and the changes of signals of AdWords (e.g., CTR, CPC, RPM and quality scores), and the effectiveness of AdWords campaign treatments.

*Research Assistant, National Chiao Tung University*

Sep. 2010 – Jan. 2012

**Project:** Mining Semantic Regions from Trajectories

- Proposed a framework for extracting semantic regions from user trajectories (DASFAA'11).
- Developed methods for extracting semantics from geographic information and App usage patterns.

## EDUCATION

*Ph.D Candidate*, Computer Science Aug. 2012 – Present  
University of Illinois at Chicago. Advisor: Professor Philip S. Yu. GPA: 3.76/4.00.

*M.S*, Computer Science and Engineering Sep. 2009 – Sep. 2011  
National Chiao Tung University. Advisor: Professor Wen-Chih Peng. GPA: 4.00/4.00

*B.S*, Computer Science and Information Engineering Sep. 2004 – Jun. 2008  
National Taiwan University  
Cumulative GPA: 3.5/4.00; Major GPA: 3.58/4.00; Final 2 Years GPA: 3.75/4.00

## SELECTED PUBLICATIONS

- Chun-Ta Lu, Lifang He, Hao Ding, Bokai Cao and Philip S. Yu. *Learning from Multi-View Multi-Way Data via Structural Factorization Machines*. In Proceedings of **WWW 2018**.
- Chun-Ta Lu, Lifang He, Weixiang Shao, Bokai Cao, and Philip S. Yu. *Multilinear Factorization Machines for Multi-Task Multi-View Learning*. In Proceedings of **WSDM 2017**.
- Lifang He, Chun-Ta Lu, Guixiang Ma, Shen Wang, Linlin Shen, Philip S. Yu, and Ann B. Ragin. *Kernelized Support Tensor Machines*. In Proceedings of **ICML 2017**.
- Lifang He, Chun-Ta Lu, Hao Ding, Shen Wang, Linlin Shen, Philip S. Yu, and Ann B. Ragin. *Multi-way Multi-level Kernel Modeling for Neuroimaging Classification*. In Proceedings of **CVPR 2017**.
- Shen Wang, Lifang He, Bokai Cao, Chun-Ta Lu, Philip S Yu and Ann B. Ragin. *Structural Deep Brain Network Mining*. In Proceedings of **KDD 2017** (Oral).
- Tingting Liang, Lifang He, Chun-Ta Lu, Liang Chen, Philip S. Yu and Jian Wu. *A Broad Learning Approach for Context-Aware Mobile Application Recommendation*. In Proceedings of **ICDM 2017**.
- Chun-Ta Lu, Sihong Xie, Weixiang Shao, Lifang He, and Philip S. Yu. *Item Recommendation for Emerging Online Businesses*. In Proceedings of **IJCAI 2016**.
- Lifang He, Chun-Ta Lu, Jiaqi Ma, Jianping Cao, Linlin Shen, and Philip S. Yu. *Joint Community and Structural Hole Spanner Detection via Harmonic Modularity*. In Proceedings of **KDD 2016** (Oral).
- Weixiang Shao, Lifang He, Chun-Ta Lu, Xiaokai Wei and Philip S. Yu. *Online Unsupervised Multi-view Feature Selection*. In Proceedings of **ICDM 2016**.
- Chun-Ta Lu, Hong-Han Shuai, and Philip S. Yu. *Identifying your Customers in Social Networks*. In Proceedings of **CIKM 2014**.
- Chun-Ta Lu, Sihong Xie, Xiangnan Kong, and Philip S. Yu. *Inferring the Impacts of Social Media on Crowdfunding*. In Proceedings of **WSDM 2014**.

For my full publication list (26 papers in total), please visit: <https://scholar.google.com/citations?user=05CGvyAAAAAJ&hl=en>

## PROFESSIONAL SERVICES

- Reviewer of ACM Transactions on Knowledge Discovery from Data (TKDD), 2015-Present
- Reviewer of ACM Transactions on Intelligent Systems and Technology (TIST), 2016-Present
- External Reviewer of WSDM (2017), KDD (2016), CIKM (2016), AAAI (2016, 2018), IJCAI (2016)

## AWARDS AND HONORS

- Student Travel Award (WSDM 2014, KDD 2016, ICDM 2016, WSDM 2017)
- UIC Graduate Student Council Travel Award (2014, 2016)
- UIC Student Presenter Award (2014, 2016)