

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 2K 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 (arXiv'17).
- 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 and Philip S. Yu. *Learning from Multi-View Structural Data via Structural Factorization Machines*. arXiv:1704.03037, 2017.
- 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. *Context-Aware Mobile Application Recommendation via Tensor Analysis*. 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 (22 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), 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)