ZHIPENG LUO

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EDUCATION

University of Pittsburgh, PA, USA   *09/2013 - 12/2019 (expected)*

- Ph.D. Candidate in **Computer Science**. Supervisor: **Dr. Milos Hauskrecht**
- Research Interests: **Statistical Machine Learning, Statistics**
- Graduate Student Fellowship Award

Beihang University, Beijing, China   *09/2009 - 06/2013*

- Bachelor of **Computer Science and Technology**
- Research Interests: **Data Mining, Social Network Analysis**
- National Scholarship Award

BACKGROUND OVERVIEW

- **Active Learning & Learning from Weak Supervision**. My Ph.D. thesis aims to learn classifiers well from minimized human supervision. Our approach is called **Group Active Learning** which learns classifiers from *labeled groups* that are *actively* formed and labeled. *The essential advantage of group labeling is that through only one group label human can express their belief on classifying a population of instances.* When combined with active learning, it is able to build high-quality models from very limited human supervision.

- **Clinical Event Alerting System Building** (Link). I have also been working on an NIH-funded project lead by Dr. Hauskrecht for four years. Our goal is to build a real-time alerting system that can detect outliers in ICU clinical events. The data are various clinical time series from UPMC hospitals. *My responsibility is to (1) pre-process various clinical time series; (2) derive hierarchical time series (e.g. medication hierarchy); and (3) generate continuous-time-based features for model learning.*

- **Ph.D. Coursework**. To make up my background of statistical machine learning, I have taken 6 Statistics courses and 5 Machine Learning related courses in recent years. See next pape.

RESEARCH EXPERIENCE

Active Learning & Group Learning   *09/2015 - present*

1. **Zhipeng Luo** and Milos Hauskrecht. "Region-based Active Learning with Hierarchical and Adaptive Region Construction." *SIAM International Conference on Data Mining (SDM)*. 2019.

2. **Zhipeng Luo** and Milos Hauskrecht. "Hierarchical Active Learning with Proportion Feedback on Regions." *Joint European Conference on Machine Learning and Knowledge Discovery in Databases (ECML-PKDD)*. 2018.

3. **Zhipeng Luo** and Milos Hauskrecht. "Hierarchical active learning with group proportion feedback." *The 27th International Joint Conference on Artificial Intelligence (IJCAI)*. 2018.

4. **Zhipeng Luo** and Milos Hauskrecht. "Active learning of classification models from soft-labeled groups." *Advances in Neural Information Processing Systems, Learning from Limited Data Workshop (NIPS LLD Workshop)*. 2017.

5. **Zhipeng Luo** and Milos Hauskrecht. "Group-Based Active Learning of Classification Models." *The Thirtieth International FLAIRS Conference.* 2017.

6. X. Ge, Y. Xue, **Z. Luo**, M. Sharaf, and P. Chrysanthis. "REQUEST: A scalable framework for interactive construction of exploratory queries." *IEEE International Conference on Big Data (IEEE BIGDATA).* 2016.

Outlier-based monitoring and alerting of ICU clinical events   *01/2015 - present*

- Funded by NIH 2R01GM088224: *Real-time detection of deviations in clinical care in ICU data stream.*

- Responsible for data cleaning, data deriving and feature generation for both historical and real-time clinical time series.

Data Mining in Large Social Network   *05/2012 - 01/2013*

- Mining user opinion and influence in very large social Network - *Tecent Weibo*

- D. Li, **Z Luo**, Y. Ding, J. Tang, G. Sun, X. Dai, J. Du, J. Zhang and S. Kong. "Userlevel microblogging recommendation incorporating social influence." *Journal of the Association for Information Science and Technology (JASIST).* 2017.

INTERNSHIP EXPERIENCE

- **Data Scientist** at **Walmart Labs**. Sunnyvale, CA, USA   *06/2019 - 08/2019*

- **Machine Learning Scientist** at **Amazon Inc**. Cambridge, MA, USA   *04/2015 - 07/2015*

- **Software Developer** at **Tencent Inc**. Beijing, China   *05/2012 - 03/2013*

RELATED GRADUATE COURSEWORK

- **Machine Learning**: Introduction to Machine Learning, Advanced Machine Learning, Reinforcement Learning, Artificial Intelligence, Natural Language Processing

- **Statistics**: Applied Statistical Methods I & II, Bayes Theory and Computational Methods, Modern Statistical Computing, Asymptotic Methods, Theory of Probability & Statistics

EXTRA-CIRRUCULAR

- **Recitation Lecturer**: Data Structure, Algorithm Design, Discrete Mathematics, Operating System. *01/2014 - 12/2015*

- **Vice President** of Graduate Student Organization of Computer Science Department, University of Pittsburgh. *04/2013 - 04/2015*

PERSONAL TRAITS

- In discipline: piano playing; work out.

- Also love history reading, documentary watching and novel writing.