Seeking Software Engineer Position 2020/2021

Lei Zhang

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Education

University of Pittsburgh **Pittsburgh, PA**

Master of science in computing and information science *January 2019 – December 2020 (expected)*

- **Cum GPA: 4.0/4.0**

Hebei University of Technology **Tianjin, China**

Bachelor in Electronics and Information Engineering *September 2008 – July 2012*

Courses

- Algorithm Design, Data Structure, Database Systems, Machine Learning, Neural Network, Artificial Intelligence, Cloud Computing (CMU), Information Retrieval

Skills

- Languages/technologies: C++, Python > Java, JavaScript, R, Lua, MATLAB, ActionScript
- Experienced with Git, Linux, Spark, MapReduce, Distributed Systems, MySQL, Android, Flask

Work Experience

Google **Sunnyvale, CA**

Software Engineer Intern *May 2020 – August 2020*

- Designed and developed a command line tool to analyze the network usage data. An algorithm was developed to detect and remove the outliers (C++)
- Designed and developed a web service to monitor the network usage pattern (C++, HTML)
- Improved the efficiency of data reading & statistics computing (run time from > 3 hours to 10 minutes) (Database)
- Designed an algorithm to identify top usage clients, the algorithm ensures a stable top list

University of Pittsburgh - PICSO Lab **Pittsburgh, PA**

Graduate Student Researcher (Part-time) *January 2019 – April 2020*

- Designed and developed a social experiment platform to provide support to researchers who have little programming skills to be able to conduct social experiments in IM context with interactive messages (Flask, Slack API)
- Designed and developed a crowdsourcing system on Amazon MTurk which successfully collected more than 100,000 effective annotations (HTML, JavaScript, Python, best–worst scaling)
- Large scale data collection & cleaning (Spark, Python)

University of Pittsburgh - PAWS Lab **Pittsburgh, PA**

Graduate Student Researcher (Part-time) *June 2019 - April 2020*

- A Natural language Processing project to extract concepts from textbooks and quizzes (TF-IDF, word2vec, POS, parser, google n-grams)
- Built a recommendation system using student knowledge state.

Class Projects

Distributed Twitter Stats Computing Service *(Cloud Computing at CMU – Fall 2019)*

The goal is to design a web service which provides relational stats of twitter user with high throughput. We

- Extracted, transformed, and loaded large scale data with Spark
- Designed and deployed a distributed database, a distributed web service and a load balancing service
- Our throughput beat 100% teams during the live test!

Publications

- Thaker K, Zhang L, He D, et al. Recommending Remedial Readings Using Student Knowledge State[C]//13th International Conference on Educational Data Mining. 2020: 233-244.