Qinhang (Andrew) Li

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EDUCATION

University of Massachusetts Amherst, US **(gapped during 2020-2021 academic year)** *Sept. 2019 – May. 2022*
Master of Computer Science, GPA: 3.6 / 4.00

Sun Yat-Sen University, China *Aug. 2015 – May. 2019*
Bachelor of Software Engineering, GPA: 3.6 / 4.00

SKILLS

Programming Languages: Python, Java, JavaScript, C++
Skills: MapReduce, MySQL, PyTorch, UI Automator

WORK EXPERIENCE

Alibaba | Software Engineer Intern | Hangzhou, China *April. 2021 – July. 2021*

- Interned in Hyprid Cloud team to develop a machine learning system for detecting anomalies on the AI-DevOps platform with a special focus on time series data, i.e. QPS and RT.
- Adapted approaches from Telemanom and break point detections to develop an auto-thresholding approach to reduce False-Positive alert by more than **30%**. Features are extracted with VAEs, LSTMs and Donuts.
- Built the backend system with **Flask** and **Springboot**.
- Was *recognized* as *Excellent Innovation Project* among **top 2%** internship projects.

Kuaishou | Software Engineer Intern | Beijing, China *Sept. 2020 – Jan. 2021*

- Interned in the e-Business team to develop test automation framework.
- Developed and maintained more than 100 test automation cases to detect and report bugs in event tracking and UI display.i,e, event missing and text overflow from text view. More than 22 bugs was found.
- Improved the existing UI style checking approach that was based on template matching with feature matching methods (SIFT) and object detection. Makes it more efficient for test engineer to maintain test scripts. Improved their efficiency by **20%.**
- Was the first author of the corresponding **patent**.

RESEARCH EXPERIENCE

Auto Package Counting Project *Sept. 2018 – June. 2019*
- Intelligence Science and System Lab at Sun Yat-Sen University

- Collaborated with JD.com to develop a package detecting and counting project which aims to count package numbers for express transit sites.
- Adapted YOLOv3 to build this project. By modifying network structure, the algorithm achieved both recall and precision over **98%** with FPS over 10FPS on CPU.
- This project has obtained a **patent.**
- Ranked **2/40** in the evaluation group by the committees as an outstanding thesis work.

PROJECTS

MapReduce Framework Implementation *March. 2021 – April. 2021*

- Implemented MapReduce framework using only native Java library by following MapReduce's paper.
- Used socket for nodes to communicate with each other, multi-thread programming is supported and thread safety was implemented.
- Support UDF and user defined config file (I,e number of nodes).
- Support fault tolerance feature. i.e., even fault occurs on workers, task can still be done correctly.

Homework Management Web Application *Nov. 2017 – Jan. 2018*

- Developed a web application for homework management, where student can upload their homework as well as discussing homework problems, and teachers assign and grade students' homework and give feedback.
- Built the frontend using JavaScript and Angular. And built the back end using Mango DB and Node.js.

Honors and Other Activity

- Teaching Assistant of Computer Networks Course. *Sept. 2018 – May. 2019*
- 2nd Runner-up of ACM Programming Contest on Guangzhou City. *Dec. 2016*
- Microsoft Research Asia Honor Microsoft Club Member Camp. Aug 2017
- Student Scholarship of Sun Yat-sen University. *Sept. 2016, Sept. 2017, Sept. 2018*