TONY XIAO

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EDUCATION

M.S., Computer Science, University of California, Davis	09/2019 - 01/2021 (Expected)
B.S., Computer Science and Engineering, University of California, Davis	09/2014 - 09/2018

WORK EXPERIENCE

Software Engineer Intern, *Palo Alto Networks, Santa Clara, CA*   06/2020 - 09/2020
Tech Stack: Spring Boot, Jenkins(CI/CD), AWS, Grafana, InfluxDB, Telegraf
- Fixed 100+ bugs/issues in existing services. Wrote unit tests and improved the coverage about 40%.
- Derived a general guidance for refactoring a highly integrated service into micro-services.
- Developed several metrics to measure data-pipeline performance and built dashboard for analysis.

Application Programmer, *BugSwarm Research Team, UC Davis, CA*   09/2018 - 08/2019
Tech Stack: Python, Travis-CI, Docker, MongoDB, Azure, Docker
- Maintained existing databases, designed RESTful APIs based on Python eve, and implemented several data visualizations to help outside researchers have a better overall view of the dataset.
- Developed a pipeline tool to automatically reproduce 600+ open source projects' historical continue integration results and preserve the run-time environment with docker images.
- Periodically tested the existing BugSwarm artifacts, Patched and fixed 500+ broken BugSwarm artifacts to support and conduct the long term reproducibility study.
- Integrated automatic bug classification and guided bug mining into existing pipeline.

Full Stack Developer, *BunBao.com, Inc, Fremont, CA*   06/2018 - 02/2019
Tech Stack: ReactJS, Django, GraphQL, PostgreSQL
- Customized an e-commerce website back-end service based on an open source framework - Saleor. Implemented internal transaction workflow and build backend API with GraphQL.
- Worked with Graphic designer to build user-friendly and mobile friendly website front-end.

ACADEMIC EXPERIENCE

Teaching Assistant for Senior Design   01/2020-06/2020
Mentored and advised 48 Computer Science senior undergraduate students for a wide variety of projects including Web App, Mobile App, ML, AR, Drones, micro-controller, etc.

Graduate Student Researcher   08/2019-01/2020
Advised by Prof.Cindy Rubio González, conducted research on supporting long-term software execution.

SKILLS

Proficient in Python, Java, C/C++, Git, CI/CD, Docker, React, Javascript, MongoDB
Experience in Swift, Spring Boot, SQL, HTML/CSS, GraphQL, OpenMP, MPI, Lisp, CUDA, R, Julia
Operating Systems Linux, macOS, Windows

PROJECTS

Movie Recommendation System (Python, Machine Learning)
Based on anonymous rating data from Netflix, applied several methods such as Spectral Clustering, Matrix Completion, Collaborative Filtering to predict the rating that a user would give to.

GitHub Repository Browser App (React Native, Redux, Swift)
A cross-platform app enable users to explore top trending repos on GitHub.

Energy Visualization Tool (MongoDB, ExpressJS, ReactJS, NodeJS)
Developed a web app which enables the UC Davis Energy Conservation Office staff to pull, analyze, and visualize Heating, Ventilation, and Air Conditioning data.