Paul Luo

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Work Experience

Software Engineer | VMware   *Aug 2021 – Present*
- Maintained key components responsible for reliability and performance of vSAN's distributed storage layer.
- Developer for a containerized tie-breaker host appliance involving concurrency, appropriate data distribution, and coordination between nodes.
- Contributed to a version formatting schema, which allows for smoother transitions during upgrades scenarios.
- Owned a feature that introduces a parent-child relationship for various entry types defined internally.
- Scaled and applied mux enhancements to decrease CPU bottlenecks and increase efficiency by >10%.
- Wrote and preserved multiple tutorial pages for bug triaging, team-specific concepts, and onboarding.
- Root caused, triaged, and applied necessary fixes to numerous low to high priority bugs while utilizing GDB and internal testing frameworks.

Student Software Engineer | General Motors   *Jan 2020 – Dec 2020*
- Designed a wireframe process and implemented a generative algorithm using Python and ANSYS modules to optimize heatsink topology in electronic devices.
- Utilized extensive research on Python's SciPy library and integrated scripts to locate within 1% the global optima for evolutionary algorithms.
- Discussed and communicated with team members and mentors about project planning as well as validation strategies during bi-weekly presentations following the Agile development process.

Skills

- **Programming Languages:** C++, C, Python, HTML, CSS, JavaScript, SQL, Golang, Java
- **Platforms/Frameworks:** Windows, Linux, MacOS, Git, Bash, Perforce, VIM, MongoDB, React, AWS, GDB
- **Spoken Languages:** English, Chinese (Mandarin)

Education

University of Michigan | Ann Arbor, MI   **April 2021**
Bachelor of Science – Computer Science   ***GPA: 3.7/4.0***
- **Relevant Coursework:** Operating Systems (**EECS 482**), Advanced OS Projects (**EECS 498**), Human-Centered Software Design and Development (**EECS 497**), Software Engineering (**EECS 481**), Database Management Systems (**EECS 484**), Information Retrieval and Web Search (**EECS 486**), UI Development (**EECS 493**), Computer Security (**EECS 388**), Foundations of Computer Science (**EECS 376**), Computer Organization (**EECS 370**), Data Structures and Algorithms (**EECS 281**)

Projects

Network File Server (C++, C)   *Nov 2020*
- Applied knowledge of multi-threading, sockets, hierarchical file systems, security protocols, and client-server systems to develop a program in C++ that serves file system requests from a client interface.
- Used C++ standard mutex and thread library to correctly apply mutual exclusion and concurrency.

Business Review App (HTML, CSS, JavaScript)   *Jul 2020*
- Created a web application that functions closely to Yelp.com using React, HTML, and CSS for the user interface design and Node along with MongoDB to execute backend methods in JavaScript.
- Applied RESTful API routing, Express and Passport for secure HTTPS requests, and AWS S3 for deployment.

Social Media Simulator (SQL, JavaScript)   *Oct 2019*
- Designed a relational database using SQL which emulates the popular social media platform Facebook.
- Implemented SQL scripts with Oracle and JavaScript programs with JDBC that ranged from querying mutual friends to looking up commonly tagged photos from specific events and hashtags.

Extracurriculars

- UM ACHA Division II Men's Ice Hockey Team Member/Alumni Coordinator   *Sep 2017 - 2021*