Justin Lin

Junior Software Engineer with Experience at Microsoft and Google

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WORK EXPERIENCE

Microsoft, M365 Full Stack Software Engineer Intern May 2024 – Aug 2024

Torus (Datacenter Management Service) Web Development

JavaScript/HTML/CSS/C#/PowerShell

- Increased Web DMS/DMS script call percentage from **10%** to **30%** by incorporating **FIDO2** web authentication, managing **millions** of daily script operations for **Azure datacenter authentication**.
- Integrated secret management scenarios into **Web DMS**, delivering a seamless **end-to-end** experience for Torus users across multiple web-based platforms.
- Improved system security by reducing **Web DMS vulnerabilities** by **15%** through the deployment of the new **FAuth** protocol and integration of **biometric authentication**.
- Cut **resource costs** by **30%** for **same cmdlets** on **Web DMS** by optimizing the data process pipeline and **RBAC** system.
- Increased **data retrieval** efficiency by **20%** and reduced **loading time** on the web-based frontend compared to cmdlet.
- Transitioned **300** on-call/support engineers from **DMS** to a fully web-based **Web DMS** platform.

Google, Fitbit Software Automation Engineer Sep 2022 – Apr 2023

Display Automation

Python/Kibble

- Reduced watch lux value error from **50%** to **10%** by establishing automated testing environments.
- Saved a total of **300 hours** over the product generation by developing display testing tools.
- Cut manual testing time for **10 testing engineers** by **10 hours** with each patch update.

Power Tool Automation

- Developed a testing environment that supports **all levels** of Google smartwatch products.
- Extended watch **usage time** from **12** to **13** hours by developing a tool for automatic leakage current detection.
- Optimized **battery efficiency** by **10%** by optimizing complex module current utilization with Kibble.

SKILLS AND KEYWORDS

Programming Language: C++, Python, Java, JavaScript, C#, HTML, CSS, Shell Script

Commercial Tool: Git, Android Studio, Flask, PyTorch, React, Maven, Apache, AWS, Azure, EC2, Kubernetes, Docker, MySQL, MongoDB, PostgreSQL, Cassandra, Redis, DynamoDB, Docker, PowerShell, Postman, CI/CD Tools, RESTful

EDUCATION

University of Illinois at Urbana-Champaign

Master of Computer Science Expected Graduation Dec 2024

GPA: 4.0/4.0

- Relevant Coursework: Software Engineering, Distributed System, Cloud Computing Application, Database System, Applied Machine Learning, Scientific Visualization, Data Cleaning

National Taiwan University

Bachelor of Physics (Minor in Computer Science) Dec 2022

- CS GPA: **4.28/4.30**, Dean's List Award (2 times)

PROJECTS

Academic Related Database, Database System Apr 2024

- Created an academic website using **Python**, enabling high school students to find suitable universities. The platform integrates **MySQL**, **MongoDB**, and **Neo4j** for efficient data management, featuring top keyword searches, an interactive university map, a faculty search engine, and a networking space for students and professors.

Distributed Gossip-Style P2P System, Distributed System Nov 2023

- Implemented a gossip-style P2P membership protocol with a virtual network of **3000 nodes**.
- Met the completeness and accuracy of failure detection for the real-life errors (multiple node failures and node failures under a lossy network), finished a fully working key-value store for a truly distributed system.