SERAPHINE GOH

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WORK EXPERIENCE

Western Digital - Senior Software Modeling Systems Design Engineer   July 2020 – Present
Flash Product Engineering – Enterprise SSD – System Architecture
- Optimize performance, power, and latency metrics in enterprise SSD products through Python software modeling and batch simulations on AWS cloud compute (EC2) and storage (S3)
- Build features into model and conduct studies to identify SSD product enhancements, **reducing read/write latency by over 44%** and **boosting performance by 54% for random workloads and 12.5% for sequential workloads**
- Improve modeling fidelity, communicate recommended firmware implementations to cross-functional teams, and create internal tools to increase data processing efficiency
- Contribute to codebase with CI/CD practices using git, Jenkins, BitBucket, and Artifactory
- Process and visualize metric data with data processing tools including pandas, seaborn, and NumPy

Western Digital - Systems Design Engineering Intern   June 2019 – Sept 2019
- Conducted an end-to-end investigation on decreasing workload latency spikes caused by DRAM congestion exhibited in enterprise SSDs
- **Reduced congestion by 88.7%** by implementing a write-transaction rate limiter in the in-house Python model for SSD performance

CIMB Singapore - Financial Analyst Intern (Research Division)   July 2017 – Aug 2017
- Analyzed financial performance and wrote initiation reports for potential investment companies
- Compiled company statements to evaluate their financial health, outlook, and earnings potential

PROJECTS

Osusume: A Recommendation Forum | *React (JavaScript), Flask (Python), SQLite*
- Full-stack web application where users can poll the community and discuss recommendations for various subjects, such as movies, restaurants, and career advice
- Implements features such as authentication, commenting, voting, category tagging, and pagination
- Repo: *https://github.com/sgoh25/osusume*

The Bready Bakery | *React (JavaScript), Next.js, Firebase Realtime NoSQL Database, Firebase Cloud Storage*
- An interactive crowdsourced cookbook where users can share their favorite recipes (images, ingredients, instructions)
- Repo: *https://github.com/sgoh25/cookbook*

EDUCATION

University of California, Los Angeles
M.S in Electrical and Computer Engineering (GPA: 3.6/4.0)   Sept 2018 – June 2020
B.S in Electrical Engineering; Honors: *cum laude* (GPA: 3.7/4.0)   Sept 2014 – June 2018

- **Computer Science:** Computer Science I/II, Computer Organization, Machine Learning, Neural Signal Processing, Applied Numerical Computing
- **Systems:** Systems Design, Embedded Systems, Security for Embedded Systems, Principles of Semiconductor Design
- **Circuits:** Circuits Laboratory I/II, Circuits Theory I/II, Digital Electronic Circuits, Logic Design of Digital Systems, Advanced Digital Integrated Circuits, Design of VLSI Circuits and Systems, Analog Electronic Circuits
- **Management:** Finance and Marketing for Engineers, Entrepreneurship for Engineers, Business Law

SKILLS

Programming Languages: Python, JavaScript, SQL, C++, Java, bash
Technologies: React, Flask, SQLite, Jupyter Notebook, pandas, seaborn, matplotlib, NumPy
Development Tools: git, Firebase, Jenkins, AWS (S3/EC2), Github/BitBucket/Gerrit, Artifactory
Other: full-stack web development, CI/CD, scripting, data science, data analysis/visualization, debugging