Jonathan Kim

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Education

University of California, Berkeley Berkeley, CA

Bachelor of Science in Electrical Engineering and Computer Science *Aug. 2019 – June 2023*

- Relevant Coursework: Data Structures, Databases, Algorithms, Operating Systems, Computer Security, Computer Graphics, Foundations of Data Science, Introduction to Artificial Intelligence, Introduction to Machine Learning, Computer Architecture

Experience

Amazon Web Services May 2022 – Aug. 2022

Software Development Engineer Intern *Seattle, WA*

∗ Utilized Amazon cloud services such as DynamoDB, Lambda, EC2, and S3 to design and implement a config file propagation unit necessary for task and service routing using Java
∗ Decreased run-time by 10x while using Junit and integration testing to ensure stability
∗ Utilized CI/CD pipelines, gained experience with Agile work environment, and created design documentation during end-to-end development on back end infrastructure

University of California, Berkeley Jan. 2022 – June 2023

Classroom Technology Support Specialist *Berkeley, CA*

∗ Communicate with on-site engineers to set up and troubleshoot computers and projectors used on campus
∗ Assess and troubleshoot computer and audio-visual technology problems brought by students, faculty and staff
∗ Maintain upkeep of computers, projectors, and classroom equipment across campus

Technical Skills

Languages: Java, Python, C, C++, C#, Go, SQL , HTML/CSS, React
Developer Tools: Amazon Web Services (S3, DynamoDB, Lambda, EC2), Git, Unity

Projects

End-to-End Encrypted File Sharing System | Go, Git

· Developed a secure file sharing system with sharing and revocation privileges and I/O efficient file appends
· Utilized symmetric and asymmetric encryption keys and HMAC's to secure user and file data against man in the middle attacks

NumC | C, NumPy, OpenMP, SIMD, Git

· Implemented various NumPy matrix operations with the goal of optimization compared to naive solution
· Utilized various algorithms like Strassen to reduce runtime
· Utilized OpenMP and SIMD instructions to run arithmetic in parallel

Wind Force on Grass Simulation | C++, OpenGL, Git

· Implemented a simulation of the effects of wind on grass fields using various computer graphics principles
· Utilized shaders and textures in OpenGL to mimic grass and simulated wind using wind load and Euler integration for angular displacement of grass

To-do List | React, CSS, HTML

· Developed a lightweight to-do list using React components/functions, Google fonts, and HTML/CSS
· Developed basic functionality like adding, deleting, and editing tasks