Hannah S. Oh

hannahso@berkeley.edu **(408) 593-7698** **hannahso** **hannahsooah**

Education

University of California, Berkeley **Electrical Engineering and Computer Science, BS**
Aug 2020 - Dec 2022
Coursework: Operating Systems, Algorithms, Data Structures, Internet Protocols, Machine Structures, Database Systems, AI, Linux SysAdmin DeCal, Discrete Mathematics, Designing Information Devices and Systems

Experience

Software Engineer Intern | Meta
May 2022 - Aug 2022 New York City, NY
- Built a debug adapter for command line debuggers to communicate using Debug Adapter Protocol
- Refactored a VSCode extension to launch record-and-replay debug sessions in the IDE's debugging UI
- Multithreaded the server to enhance performance and manage multiple streams of input independently
- Integrated the product with existing tooling and enabled multiple launch methods for various use cases

Production Engineer Intern | Meta
Jun 2021 - Aug 2021 Menlo Park, CA (Remote)
- Implemented relative computing resource units for future use in server inventory management systems
- Refactored scheduler to be cross-compatible with capacity requests of different resource types
- Enabled logging and created alerts and detectors to monitor invalid resource configurations

Academic Course Staff | UC Berkeley EECS Department
Jan 2021 - May 2022 Berkeley, CA
- Led weekly reviews to reinforce student knowledge of machine architecture, high-level language support, and operating systems (I/O, interrupts, memory management, process switching)
- Aided students in conceptual application through projects, homework, and labs

Projects

Addepar EntitySearch Sept 2021
- Created an automatic cloud deployment of AWS OpenSearch, using its REST API for queries and uploads
- Developed a scalable search endpoint used in workflows in AMP for clients to handle large number of nodes

NumC Apr 2021
- Developed a Python array-processing API written in C mimicking NumPy functionalities
- Implemented multi-threading, SIMD, loop unrolling, and blocking to optimize matrix arithmetic
- Achieved 90x speedup for matrix multiplication and 1000x speedup for matrix powering

Gitlet Mar 2021
- Built a custom version control system in Java from scratch, mimicking git
- Wrote a breadth-first search algorithm to detect split points in commit history for correct branch merging
- Functionality includes init, add, commit, rm, log, global-log, find, status, checkout, branch, merge, reset, etc.

Classify Feb 2021
- Wrote RISC-V assembly code to run a simple Artificial Neural Network (ANN) on a RISC-V simulator
- Loaded a pretrained ANN and executed it to classify handwritten digits from the MNIST benchmark set

Skills

Languages: Rust, Java, C, Python, RISC-V, SQL, LaTeX, Lisp, React
Tools: Neovim, Git, Mercurial, Make, Terraform, VSCode, IntelliJ, Bash, Eclipse