Hannah S. Oh

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Education

University of California, Berkeley **Electrical Engineering and Computer Science, BS** (Aug 2020 - Dec 2023)
Coursework: Operating Systems, Algorithms, Data Structures, Internet Protocols, Computer Security, Communication Networks, Machine Structures, Database Systems, AI, Linux SysAdmin

Experience

Software Engineer Intern (Analytics Platform) | Addepar
May 2023 - Aug 2023 Mountain View, CA
- Automated a workflow by using Java and Python to classify assets and perform billing calculations
- Implemented a client-facing full-stack solution using Snowflake API to pipeline data to Looker dashboards
- Tested SQL database migrations on AWS EC2 instances using Jenkins to deploy to Kubernetes Comet pods

Software Engineer Intern (DevTool Development) | Meta
May 2022 - Aug 2022 New York City, NY
- Built a debug adapter for command line debuggers to communicate using Debug Adapter Protocol
- Enhanced 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 (IaaS Team) | 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
- Implemented a front end to input EntitySearch queries and display results using React and Springboot

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

Classify Feb 2021
- Wrote RISC-V assembly code to run a simple Artificial Neural Network (ANN) on a RISC-V simulator
- Implemented basic operations including vector dot product and matrix multiplication using assembly code
- Loaded a pretrained ANN and executed it to classify handwritten digits from the MNIST benchmark set

Skills

Languages: Rust, Python, Java, C, RISC-V, SQL, LaTeX, Go, C++, React
Tools: Neovim, Git, Mercurial, Comet, Snowflake, Jenkins, Make, Terraform, VSCode, IntelliJ