Rohan Tibrewal

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Education

University of California, Berkeley — Berkeley, CA
Bachelor of Arts in Computer Science (GPA: 3.85/4.00) — *Aug. 2020 – Expected May 2023*

Honors: USA Computing Olympiad Gold Contestant

Relevant Coursework: Structure and Interpretation of Computer Programs, Designing Information Devices and Systems, Data Structures, Foundations of Data Science, Discrete Mathematics and Probability Theory, Build a Modern Computer from First Principles, Cloud Native Fundamentals Scholarship Program

Experience

Software Engineer Intern — May 2021 – Aug. 2021
Kintsugi — *Berkeley, CA*

- Constructing data pipeline in collaboration with R&D team to supply high-quality audio for AI/ML training
- Developing, testing, and documenting API backend - working on authentication, storage, and dynamic schema
- Implemented and optimized programmatic solution to remove identifying information from audio

Computer Science Mentors — Jan. 2021 – Present
University of California, Berkeley — *Berkeley, CA*

- Providing supplementary instruction to UC Berkeley undergraduate students for the course "Structure and Interpretation of Computer Programs"
- Independently leading a small section of students through the curriculum and relevant problems in order to prepare them for the assignments and exams of the class

Software Engineer Intern — June 2019 – Aug. 2019
Open Networking Foundation — *Menlo Park, CA*

- Worked on the codebase of Stratum, an SDN switch operating system (written in C++)
- Simulated virtual networks to test Stratum using Mininet and Docker to create virtual switches and hosts
- Handled bugs and corner cases in gRPC communications between switch and controller
- Ensured compatibility across Python versions for Python scripts and wrote tests to increase code coverage

Projects

Hands-Free Presentation | *Python*

- Developed an application that enables controlling a presentation through voice commands
- Implemented in Python using Snowboy, a DNN based hotword detection toolkit
- Wrote a multithreaded wrapper around Snowboy to enable it to run asynchronously, which was integrated into the main Snowboy repository

Hack Computer | *HDL*

- Designed and implemented a 16-bit computer in HDL, incrementally building all components beginning with NAND gates and flip-flops

AI/ML Projects | *Java*

- Implemented machine learning algorithms such as Bayesian classifiers, Markov models and deep neural networks
- Trained Flappy Bird multilayer perceptrons using simulated evolution and natural selection

Hear2Read | *Python*

- Volunteered at a non-profit that generates book narrations in various Indian languages for visually impaired individuals - wrote Python scripts to facilitate the creation and formatting of audio data for training text to speech neural network models

Technical Skills

Languages: Python, Java, C/C++, Scheme, SQL, JavaScript, HTML/CSS, HDL
Libraries/Frameworks: NumPy, Matplotlib, PyTorch, JUnit, React, Flask
Developer Tools: Git, Linux/Unix, Virtualbox, GParted, Mininet, PyCharm, IntelliJ, Docker, Kubernetes
Cloud Platforms: AWS, GCP