

Taha Shafiei

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Education

University of California, Santa Cruz

September 2024 - Present

Masters of Science (M.S.) in Computer Science and Engineering

Relevant Coursework: Artificial Intelligence, Foundations of Modern Cryptography

University of California, Santa Cruz

September 2020 - August 2024

Bachelor of Science (B.S.) in Computer Science

Relevant Coursework: Fullstack, Natural Language Processing, Databases, Analysis of Algorithms, Computational Models, Applied Machine Learning, Computer Systems Design, Machine Learning, Data Structures and Algorithms, Computer Architecture, Assembly Language.

Experience

Avitai Bio

Cupertino, CA

Infrastructure Engineer Intern

June 2023 - September 2023

- Created and initialized remote cloud servers for model training and fine-tuning.
- Created an accessible and expandable data class for biological data.
- Created custom Docker images for remote deployment on cloud GPUs.
- Tested and modified existing tooling to ensure compatibility with current hardware demands.
- Built initial version of Avitai Bio website.

Baskin School of Engineering at UCSC

Santa Cruz, CA

Group Tutor for Programming Abstractions in Python

January 2022 - March 2022

- Held weekly office hours, helping students better understand course concepts, devise strategies to tackle assignments, and improve their current work.
- Assisted a TA during weekly office hours, answering questions and helping students one-on-one.

Projects

CNN for sign language translation utilizing the Google Isolated Sign Language Dataset

- Traditional Neural Network with four linear layers, a max pooling layer, and a dropout layer for regularization.
- Converted final PyTorch model to TensorFlow Lite model utilizing TensorFlow Lite's libraries.

Multithreaded HTTP Server

- Web server based on HTTP/1.1 protocol.
- Multithreaded using a thread-pool design.
- Atomic audit log to stderr.

Huffman Compression Algorithm

- Implemented the lossless Huffman Compression algorithm in C with low-level system calls for I/O reads and writes.
- Created and utilized fundamental data structures including nodes, queues, and stacks, and performed bit-wise operations.

Skills

Programming Languages

- C/C++, Python, Pandas, NumPy, Bash, LaTeX, MIPS Assembly, HTML/CSS

Technologies

- Git, NumPy, Pandas, Matplotlib, LaTeX, Docker, GNU/Linux, PostgreSQL, React

Leadership

Iranian Student Union

Santa Cruz, CA

President

2021 - 2024

- Lead biweekly meetings for the Iranian diaspora and those interested in Iranian Culture.
- Help coordinate and facilitate merchandise orders.
- Worked with other SWANA groups to host events for our members.
- Coordinated with Members of the Santa Cruz City Council to host cultural events.
- Previously Treasurer and later Vice-President.