

James Shima

jamesshima@mines.edu | jamesshima.com | Superior, CO | 303-249-5178

SKILLS

Languages: Python, C, C++, Rust, Bash, SQL, Java, HTML/CSS, JavaScript, OCaml, MATLAB

Frameworks: FastAPI, Vue.js, Node.js, pytest, GTest, JUnit, PostgreSQL

Tools: Git, Linux, Wireshark, Docker, UML, Jira, Modems, Microcontrollers

Libraries: TensorFlow, Scikit-learn, NumPy, LangChain, pandas, Matplotlib

EXPERIENCE

Software Engineer Intern

May 2023 – Aug 2023

CACI

Westminster, CO

- Developed full-stack modem platform to passively survey and decode 5G and LTE 3GPP packets.
- Successfully sped-up existing codebase by 5x using improved algorithms and system design. Created data visualizations such as packet tables, GPS, and an interactive map using Google Maps API. Demonstrated application company-wide to CTO and customers.
- Technologies used: Python, FastAPI, Vue3, Linux, Git, Bash, Wireshark, Docker, 3GPP, 5G, LTE

Data Science Intern

Oct 2022 – Apr 2023

Tully

Remote

- Trained a multi-layered CNN to classify weightlifting exercises using raw acceleration data.
- Achieved 86-93% accuracy with a limited dataset (less than 1000 samples). Practiced large-scale data cleansing and preprocessing using python scripts. Successfully implemented a LPF and Simpson's rule to process and integrate data samples for tracking velocity and position.
- Technologies used: Python, TensorFlow, NumPy, JSON, Matplotlib, Jupyter Notebook

Software Engineer Intern

Jun 2022 - Aug 2022

Cobalt Inc.

Golden, CO

- Created a Windows application for client to visualize brainwave data and signal processing algorithms.
- Demonstrated proof-of-concept calculations for alpha coherence using MATLAB. Performed clinical trials on numerous real-world patients.
- Technologies used: C#, WPF, XAML, MATLAB

Computer Science Teaching Assistant

Jan 2021 – Present

Colorado School of Mines

Golden, CO

- Lead teaching assistant for an introductory computer science and python programming course.
- Upheld integrity by creating a code plagiarism checker and web-scraping script. Helped with developing course content and grading automation. Mentored and taught hundreds of students coding fundamentals through review sessions, office hours, and one-on-one meetings.
- Technologies used: Python, Git, Bash, Excel, LaTeX

EDUCATION

Master of Science in Computer Science

Aug 2023 – Dec 2024

Colorado School of Mines, GPA: 4.00

Golden, CO

Bachelor of Science in Computer Science

Aug 2020 – Dec 2023

Colorado School of Mines, GPA: 3.77

Golden, CO

PROJECTS

Car Theft Prevention Device | C, C++, Arduino, HackRF

- Developed a frequency device to prevent car theft using CC1101 transceivers and an Arduino Nano.

WebM.D.++ | Python, PostgreSQL, Scikit-learn

- Created a relational database, UI, and Random Forest Classifier to predict a patient's diagnosis.

Clue Game | Java, Swing

- Designed the board game Clue from the ground up. Applied OOP, agile scrum and a testing pipeline.

Personal Website | HTML, CSS, JavaScript

- A static website to display my above projects, current projects in the work, my blog and more.