

Daniel Alemayehu

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EDUCATION

University of Colorado Boulder

August 2023 – May 2027

Bachelor of Science in Computer Science and Applied Mathematics

GPA: 3.6

- Minor in Physics, Quantum Engineering, MCDB, and Computational Biology
- Certificate in Engineering, Ethics, and Society

EXPERIENCE

NOAA Junior Data Manager

May 2025 – Present

David-Skaggs Research Center (DSRC)

Boulder, CO

- Manage over 9 million nautical miles of Multibeam Bathymetry Data on Oracle Databases
- Utilize RHEL Linux Servers to organize and ingest raw data into NOAA databases
- Develop and Maintain data ingest pipelines and processes utilizing Bash, Python, and SQL

SPUR Undergraduate Assistant

May 2024 – August 2024

University of Colorado, Boulder

Boulder, CO

- Collaborated with PI to develop PETSC Rust bindings
- Presented findings on Rust's Role in Scientific Computing in Technical and Nontechnical Conferences
- Expanded documentation + functionality for PETSC-rs

Data Structures Course Assistant

January 2024 – May 2024

University of Colorado, Boulder

Boulder, CO

- Coordinated with team to provide course office hours times to 400+ students
- Answered questions in 2 hour office hours sessions about Data Structures and C++
- Supported TAs and students of 40+ in recitations by answering questions and taking attendance

PROJECTS

Differential Equations Modeling Project - Matlab

September 2024 – October 2024

University of Colorado, Boulder

Boulder, CO

- Solved problem regarding fish population management for recreational fishing
- Applied Matlab coding and modeling skills to visualize population dynamics
- Collaborated with 3 person team to divide problem analysis

Jerrimeter — HTML, CSS, Javascript

February 2025

University of Colorado, Boulder

Boulder, CO

- Applied knowledge of Information Theory to build an educational password analyzer
- Utilized web technologies to build a browser frontend for end-users
- Placed 1st in the Cybersecurity track of T9-Medihacks hackathon

Music Merge - HTML, CSS, Javascript

March 2023 – April 2023

University of Colorado, Boulder

Boulder, CO

- Collaborated in a 5 person sprint team to deliver a project to merge multiple Spotify Playlists in 4 weeks
- Wrote main NodeJS API calls to the Spotify API to merge user playlists with a variety of configuration options
- Presented a technical demonstration of our project to 200+ Students and Faculty

EXTRA

Colorado Engineering Magazine Writer

Fall 2024 – Present

CU Boulder

Boulder, CO

- Contributed to the Fall 2024 Issue with an article on the Fediverse
- Contributed to the Spring 2025 Issue with an article on CU Boulder Dr. Peleg's firefly research

TECHNICAL SKILLS

Languages: Javascript (Nodejs), Python (Scipy, Pandas, Numpy, Matplotlib, Plotly), C/C++, HTML/CSS, SQL, Rust, Matlab, Sagemath, Bash

Developer Tools: Git, Docker, VS Code, Github, Linux (Arch, Debian), Jupyterlab, Latex, Oracle SQLDeveloper

Interpersonal: Collaboration, Teamwork, Leadership, Organization, Supervision, Presentation, Writing