Absalom Ranelletti

absalom.ranelletti@gmail.com LinkedIn Github 805-433-3000 Portfolio
Simi Valley, California

Summary

I am a soon-to-be-graduate of UC Santa Cruz looking for an entry level IT position where I can contribute to the maintenance of technical systems, troubleshooting at the company level, and implementation of new systems. I have the theoretical underpinning of IT architecture to quickly grasp how to maintain various systems.

Education

University of California, Santa Cruz (UCSC), Santa Cruz, CA **Graduating June 2026**
B.A. in Computer Science 3.64GPA

Skills

Languages: Python, Java, C, C++, JavaScript
Software: Microsoft Office, Excel/Google Sheets, Google Products
General: Research, Communication, Technical Writing, Science Communication, Cybersecurity, AI management, Machine Learning, HTTPS protocol, Computer Networking Principles
Frontend: HTML, CSS, LaTeX
Developer Tools: VS Code, GitHub, Google Scripts, GDB, Shell scripting
Quickly earns new computer programs, programming languages, and software systems.

Projects

Links to the code for each project (and more) can be found on my portfolio site.

Machine Learning (AI) with Synthetic Data (Python) **Winter 2025**
- Cleaned and analyzed synthetic datasets in Python; trained and evaluated multiple machine learning models (logistic regression, k-NN, decision tree) using scikit-learn, achieving 96% mean accuracy.
- Performed statistical performance analysis and documented technical decisions and results in a formal written report.

Chess Engine and AI (C++) **Fall 2025**
- Developed a C++ chess engine with an ImGui-based interface, implementing valid move logic and integrating instructor-provided and third-party code into an existing codebase to meet project specifications.
- Implemented and optimized a negamax-based AI using bitboards and alpha-beta pruning; troubleshot integration issues by analyzing dependencies, debugging complex errors, and clarifying requirements through effective technical communication.

Multi-Threaded HTTPS Server (C) **Fall 2025**
- Wrote and implemented a multi-threaded HTTPS server in C supporting concurrent GET and PUT requests; ensured data integrity using custom bounded queue and reader–writer locks, handling hundreds of requests in seconds.
- Applied systems design principles (layering, modularity, abstraction) and strengthened debugging skills by diagnosing concurrency and tooling issues in a complex, low-level environment.

ADTS in C/C++ **Fall 2025**
- Designed and implemented multiple custom ADTs in C/C++ (doubly linked list, directed graph, matrix, dictionary, big integer) based on formal specifications, along with separate client programs utilizing each ADT.
- Evaluated design trade-offs between extending client logic versus enhancing underlying abstractions, and developed unit tests to validate correctness and reliability.

Work Experience

Storage Scholars **March 2025 – June 2025**
Student Business Development Representative *Remote*
- Improved sales tactics by researching UCSC regulations, adjusting the marketing plan to comply, then writing a web-scraping and emailing script.
- Gained familiarity with Slack and TalentLMS.

Ventura County Elections Division **March 2020**
Poll Worker
- Set up a polling station with a team, managed the voter roll and issued provisional ballots on election day.