Ashley Ramos Alfaro

970-456-5265 | ashleyalfaro323@gmail.com | LinkedIn | Github

Education

University of Denver Denver, CO

B.S. Computer Science and Mathematics; Minor in Philosophy *Expected 2025*

GPA: 3.98

Relevant Coursework: Adv. Algorithms and Data Structures, Artificial Intelligence, Linear Models and Regression, Computational Geometry, Operating Systems, Graph Theory, Linear Programming, Quantum Computing

Skills

Technical: Java, Python, C/C++, TypeScript, Angular, Pandas, NumPy, Matplotlib, Tkinter, HTML/CSS
Languages: Native Spanish, Intermediate French, Beginner Korean

Professional Experience

Software Developer Intern June – Aug 2024

Citi *Jacksonville, FL*

- Developed a TypeScript-based confirmation pop-up in Angular for Citi's form submission process, ensuring accuracy for public deployment in August 2024
- Contributed to a Front End Angular project for the Know Your Customer team, creating fields (zipcode, date, dropdown, percentage) for customer identity forms used by over 30,000 customers monthly
- Refactored latter components with helper methods for cleaner, more maintainable code and better user experience

Teaching Assistant and Tutor Sep 2022 – Present

DU Computer Science Department *Denver, CO*

- Provide assistance in Computational Geometry, Introduction and Advanced Algorithms and Data Structures courses by in-class lab guidance, dedicated office hours, interactive recitations, and grading of homework and exams
- Develop tailored learning plans based on individual student needs, resulting in improved understanding and performance

Resident Assistant Sep 2022 – Present

DU Housing and Residential Education *Denver, CO*

- Guide and support 40 diverse student residents, fostering relationships as a trusted mentor while facilitating their transition to the University of Denver and connecting them to academic, social, and campus resources
- Mediate conflicts and promote a positive living environment, ensuring inclusivity, safety, and a strong sense of community.

Projects

Stable Matching Algorithm | *Java* Sep 2024 - Present

- Developing and implementing a matching algorithm to optimize the assignment of Resident Assistants to dorms based on mutual preferences. Contributing to operational efficiency and Resident Assistant satisfaction

3D Convex Hull | *Python, Matplotlib, NumPy* Nov 2023

- Implemented a randomized incremental algorithm to find the convex hull of points in 3 dimensional space
- Achieved an efficient runtime of $O(nlog(n))$, beating the brute force approach that runs in $O(n^4)$

Huffman Compression Project | *C* Nov 2022

- Developed a program in C that effectively compresses and decompresses text files using the Huffman compression algorithm
- Achieved a significant reduction of 50% in file size through efficient Huffman compression techniques

Boggle Project | *Python, Pickle, Tkinter* June 2022

- Implemented a recursive search algorithm to validate word inputs based on adjacent letter connections, ensuring accurate gameplay
- Developed a networked multiplayer GUI Boggle game in Python, incorporating socket programming and threading for seamless server-client communication

Leadership and Community Engagement

Algorithms Club | *Founder & President* October 2023 - Present

- Grew the club to 100+ members in under a year. Lead meetings, oversee activities, coordinate hackathons, panels, and present fun algorithmic problems to enhance critical thinking skills

STEMBlazzers | *Chapter Leader Volunteer* August 2024 - Present

- Mentor and guide high school girls, fostering an interest in STEM fields
- Lead bi-monthly meetings, coordinating engaging STEM activities and discussions
- Inspire and encourage young girls to explore and pursue STEM careers, instilling a passion for the field

AWARDS

University of Denver Merit Awards

- Provost Scholarship, Shand Endowed Scholarship, Jack and Sharon Blake Endowed Scholarship, Gladys Johnson Scholarship, Marcia Moritz Gallagher Endowed Scholarship, and Cohen Family Endowed Scholarship