ALEJANDRO DIAZ PAREDES

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SUMMARY

Junior in Computer Science with a minor in mathematics. My objective is to acquire an internship in a related field or industry. My interests are in software development and team-based game development.

RELEVANT SKILLS

- SEI CERT C coding standards
- Object Oriented Programming, AGILE
- (*Familiar*): Java, C++/C, Unix Bash, Python, Git, Linear Algebra, AWS
- (*Frameworks*): Pygame, numpy, LibGDX, OpenGL, Unity

UNIX OS   Spring 2023
- Creating virtual machines with **Amazon AWS** using **Docker**
- Bash scripts for accessing directories, changing user permissions using **VIM**

JAVA & C/C++ DATA STRUCTURES   Spring 2023 - Present
- **Data structures** such as Linked Lists, binary search trees, stacks, and queues
- Efficient and modularized code that satisfies SEI CERT C **security standards**

MATRIX MANIPULATIONS   Spring 2023 - Present
- Library functions in Python for linear transformation of vertices in 3D spaces
- Implementing **algorithms** for intersecting rays and triangles in graphics

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EDUCATION

University of Colorado Colorado Springs   May 2025
- Bachelor of Science in Computer Science, ABET accreditation
- Minor in Mathematics

PROJECTS AND EXPERIENCE

- Pygame 3D Engine (Python)
  - Python used to understand the theory of computer graphics. This includes translating, rotating, scaling, and projecting vertices in a 3D space.

- Vending Machine Mayhem (Java)
  - Snack options stored in a 2D array, and the user would enter a *valid* option to receive their snack.

- Donations & Organizations (C)
  - Using structures and linked lists, user can file receipts for donations made to charitable organizations.

- Matrix Operations Library (C)
  - Functions to read matrices and vectors from a file, implements most aspects of linear algebra.

WORK EXPERIENCE

- Information Technology Intern   October 2023 - Present
  - Audio/Visual device task management, re-imaging devices by accessing the UEFI BIOS, customer support