Tallahassee, FL   (941) 932-5398

www.github.com/acortez1003   **Alex Cortez**   alexcortez3001@gmail.com

https://acortez1003.github.io

Education

Florida State University - *Tallahassee, FL*   **(Expected) Dec 2025**
Major: **Computer Science, B.S**
Relevant Coursework: **C#, Databases, Data Structs & Algorithms, Mobile Programming, Secure Computing**

Technical Skills

Languages: *(proficient):* **C++, C#, C, Java** *(familiar):* **Python, HTML/CSS, JavaScript, SQL**
Tools & Frameworks: **Git, SQLite, Nginx, Flask, Gunicorn, Android Studio, Linode, RESTful APIs, GCP, AWS**
Operating Systems: **Linux (Ubuntu), Windows, macOS, Android**

Project-Related Experience

Personal Website: https://acortez1003.github.io *(for additional information and projects)*

Cluster-Based System Monitoring Dashboard   **March 2025 – April 2025**
Python, Flask, Netdata API, SQLite, Gunicorn, Nginx, Linode, GitLab
- Developed and deployed a secure real-time system monitoring dashboard using Flask, deployed on Linode with HTTPS via Nginx and Certbot.
- Configured Netdata API across a 5-user cluster to log CPU, memory, disk, and network metrics into a SQLite database at 10-minute intervals.
- Visualized real-time (updated every 10 seconds) metrics with dynamic line graphs powered by Chart.js.

Real Estate Multiple Listing Service   **Sept 2024 – Dec 2024**
XAMPP, MariaDB, PHP, SQL, HTML, CSS
- Built a local web application for real estate listings, allowing users to explore and filter properties.
- Developed a custom SQL query interface, enabling dynamic table generation from user-defined queries.
- Designed pre-set data views with pre-generated content for quick access to listing information.

Ascend: Path of No Return (Group Project)   **Sept 2024 – Dec 2024**
Godot, GDScript
- Developed a reusable interactable node, allowing dynamic item interactions that child nodes can override.
- Optimized scene transition logic by designing modular door nodes.

eCommerce Web Application   **May 2024 – Aug 2024**
C#, Virtual Studio Community, .NET MAUI
- Developed an eCommerce application with inventory management and shopping cart functionality.
- Built and maintained CRUD operations while ensuring data integrity using MVVM architecture.

Memory Game (Group Project)   **May 2024 – Aug 2024**
Android Studio Jellyfish, Java, XML
- Developed a mobile game featuring level progression tracking using Room Persistence Library
- Designed UI/UX with XML layouts for level selection and reset functionalities.

Data Structures & Algorithms File Sorting Project   **Sept 2023 – Dec 2023**
C++, Visual Studio Code
- Optimized file sorting, reducing processing time to under 20 seconds for a 20-million-character dataset.
- Used a quicksort and hash table structure to efficiently track word, number, and character frequencies.

Work Experience & Involvement

Learning Assistant   **Aug 2023 – Present**
Florida State University Mathematics Department – Tallahassee, FL
- Assisting over 200 students in Pre-Calculus by supporting during lectures, improving comprehension.
- Lead lab sections and one-on-one tutoring, guiding students and enhancing quiz and test readiness.

Marching Chiefs   **Aug 2022 – Present**
Florida State University College of Music – Tallahassee, FL
- Dedicating 10+ hours weekly to rehearsals, performances, and fostering school spirit in a 400+ ensemble.

Summer Camp Counselor   **May 2023 – Aug 2023**
The Salvation Army – Bradenton, FL
- Supervised and guided 40+ campers, ensuring engagement during activities while maintaining safety.