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, React, AWS**
Operating Systems: **Linux (Ubuntu), Windows, macOS, Android**

Project-Related Experience

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

Sudoku Solver Web App (https://sudoku-solver-acortez.vercel.app/)   **May 2025 – June 2025**
React, JavaScript, CSS, Vite
- Built an interactive Sudoku Solver web app, featuring a custom puzzle generator and backtracking solver.
- Implemented real-time input validation and conflict detection based on Sudoku constraints.
- Designed a responsive UI with support for pencil marks, number pad, eraser, and cell highlighting.
- Developed a hint system to teach solving strategies like naked pairs and candidate elimination.

Cluster-Based System Monitoring Dashboard   **March 2025 – April 2025**
Python, Flask, Netdata API, SQLite, Gunicorn, Nginx, Linode, GitLab
- Deployed a secure Flask-based dashboard on Linode, using Nginx reverse proxy and HTTPS via Certbot.
- Configured a metrics pipeline using Netdata API to collect cluster-wide CPU, memory, and disk usage every 10 minutes into SQLite.
- Visualized 10-second live updates using Chart.js, enabling users to monitor server health in real time.

Real Estate Multiple Listing Service   **Sept 2024 – Dec 2024**
XAMPP, MariaDB, PHP, SQL, HTML, CSS
- Develop a local full-stack web application to browse, search, and filter real estate listings by user criteria.
- Built a custom SQL query interface, enabling dynamic table generation from user-defined queries.

Ascend: Path of No Return (Group Project)   **Sept 2024 – Dec 2024**
Godot, GDScript
- Designed a reusable interactable base class enabling object interactions (items, doors, NPCs).
- Optimized scene transition logic by designing modular door nodes and applying them across all 4 levels.

eCommerce Web Application   **May 2024 – Aug 2024**
C#, Virtual Studio Community, .NET MAUI
- Built an inventory management and shopping cart system with full CRUD support and MVVM architecture.
- Integrated data validation and UI binding to maintain data integrity during live updates.

Memory Game (Group Project)   **May 2024 – Aug 2024**
Android Studio Jellyfish, Java, XML
- Created a mobile game with progressive difficulty and persistent level tracking using the Room Library.
- Designed user-friendly level selection, dark mode, and reset options through dynamic UI with XML layouts.

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.