# David Silva

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CyberCorps®: Scholarship for Service Recipient

## Education

**Florida State University** — Tallahassee, FL
Master's in Computer Science | GPA: 4.0 — December 2025

**Florida State University** — Tallahassee, FL
Bachelor's in Computer Science | GPA: 3.95 — May 2024

## Experience

**Florida State University** — Tallahassee, FL
*Graduate Teaching Assistant* — August 2024 - Present

- Led 50-minute recitation sessions, reinforcing key concepts and facilitating discussions
- Held weekly office hours to support students with course material and assignments
- Assisted in grading assignments and providing detailed feedback to support student progress

**Florida State University** — Tallahassee, FL
*Webmaster, ACM @ FSU* — August 2024 - Present

- Managed and updated the chapter website, ensuring timely content and optimal functionality
- Resolved spacing and margin issues, enhancing the site's layout and overall user experience
- Collaborated with ACM officers to integrate event details and resources, improving site engagement

**Walmart Supercenter #721** — Port Charlotte, FL
*Food Team Lead* — September 2020 - August 2022

- Managed grocery, frozen, and dairy departments, increasing sales by approximately 15%
- Led a team of 10 grocery associates who consistently achieved a 95% customer satisfaction rating
- Ensured fully stocked shelves and maintained a safe work environment with 0 incidents reported

## Projects

**DoorHinge** *React, TypeScript, Flask, MySQL*

- Developed a web application to connect users with property listings
- Implemented Role-Based Access Control (RBAC) to manage user permissions and access rights securely
- Configured database schema and migrations, and integrated code into the main branch

**Where's Lunch?** *Next.js, TypeScript, Redis*

- Developed a web application designed to help a group of friends decide on where to eat for lunch
- Implemented a democratic decision-making process by allowing users to suggest and vote on locations
- Integrated Socket.IO to enable real-time communication and manage multiple concurrent lobbies

**Fingerprint Attendance System** *Arduino, Flask, MySQL*

- Utilized Arduino UNO R4 WiFi and a fingerprint sensor to capture and authenticate user fingerprints
- Developed a web interface using Flask for organization administrators to view attendance logs for events
- Ensured secure and scalable data storage and management using MySQL

**Elevator Kernel Module** *C, Linux Kernel*

- Developed a Linux Kernel Module that simulates an Elevator
- Designed the SCAN scheduling algorithm to optimize elevator operations and minimize wait times
- Implemented mutex-based synchronization to ensure safe multithreading operations

## Technical Skills

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| Programming Languages: | C, C++, C#, Python, TypeScript/JavaScript, Assembly (MIPS, x86) |
| Web Development: | HTML/CSS, Astro, React, Next.js, Node.js, Express.js, TailwindCSS |
| Mobile/Desktop App Development: | .NET MAUI |
| Backend Development: | Flask, SQLAlchemy, ASP.NET Core Web API |
| Databases: | MySQL, SQLite3, MongoDB, Redis |
| Embedded Systems: | Arduino, Microcontroller Programming, Hardware Integrations |
| DevOps and Cloud: | Docker, Vercel, Google Cloud Platform (GCP), Microsoft Azure |
| Version Control: | Git, GitHub |
| Operating Systems: | Linux/Unix, Windows, macOS |