Joshua Bandy

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EXPERIENCE

Florida Space Institute

May 2025 - Present

Software Engineer & Robotics Developer

Orlando, FL

- Engineered a modular, distributed control system for a robotic arm on **Raspberry Pi 5**, enabling independent operation and direct UI command reception.
- Designed **RESTful** APIs and integrated with **ROS2** for robust command dispatch to hardware, including custom parsing for joint and autonomy routines.
- Implemented inter-server **HTTP/TCP** communication with dynamic service discovery to facilitate collaborative robotic tasks.
- Enhanced the reliability and scalability of a complex, inherited system by implementing **agile** development cycles and applying core embedded software principles.

Sarasota County Government

January 2021 - June 2021

Software Engineer

Sarasota, FL

- Wrote and optimized **SQL** queries to extract and analyze operational and financial data, contributing to performance improvements and actionable reports for stakeholders.
- Organized internal documentation and maintained weekly write-ups detailing project status, deliverables, and completion rates, improving cross-team communication and accountability.
- Mentored new interns on project workflows, documentation systems, and database structures, accelerating their ramp-up and integration into the team.

PROJECTS

MediaShelf June 2025 - August 2025

Full Stack Developer

Orlando, FL

- Developed a full-stack web application for cataloging physical media, enabling users to manage collections of books, games, movies, and music.
- Engineered a secure **RESTful API** from scratch using **Node.js** and **Express.js** for user registration, authentication, and to handle all data operations for media items, including adding, modifying, and removing entries.
- Designed and implemented a flexible **NoSQL** database schema with **MongoDB** and **Mongoose** to efficiently store and query diverse media types.
- Built a responsive and dynamic user interface with **Next.js** and **Tailwind CSS**, featuring category-based filtering and a robust search functionality.

Campus Connect April 2025

Full Stack Developer Orlando, FL

- Developed a full-stack event management app from scratch using a **LAMP** (**PHP**, **MySQL**) stack and **Tailwind CSS**.
- Built a secure **RESTful API** in **PHP** for user authentication and event management, using prepared **SQL** statements to prevent injection.
- Created a dynamic frontend with vanilla **JavaScript** to handle asynchronous fetching for permission-based event feeds and interactive comments.
- Implemented backend business logic in **PHP** and **MySQL** to enforce club member requirements and prevent event scheduling conflicts.

Salvage Financial February 2025 - May 2025

Full Stack Developer

Orlando, FL

- Developed a cross-platform mobile companion app using **Flutter** with 90% feature parity, improving user retention and accessibility.
- Built and deployed a **MERN** stack financial web app with **CI/CD** automation using **GitHub Actions** and custom **YAML** configurations.
- Automated build, test, and deployment pipelines with **GitHub Actions**, reducing deployment time by 60%.
- Designed backend **REST APIs** using **Node.js**, **Express.js**, and **MongoDB**, improving data retrieval speed and app performance.

SKILLS

Languages C | C++ | Python | Java | JavaScript | TypeScript | HTML | CSS | SQL | PHP | Bash | YAML

Frameworks React | Next.js | Node.js | Express.js | Tailwind CSS | FastAPI | Flutter

Tools & Platforms Git | GitHub | ROS2 | Linux | systemd | DigitalOcean | MongoDB | Postman

EDUCATION

Bachelor of Science in Computer Science

August 2023 - December 2025