Jack McClellan

github.com/JackMcClellan | jack.mcclellan216@gmail.com |linkedin.com/in/mcclellan-jack

jack-mcclellan.com

WORK EXPERIENCE

FULL-STACK SOFTWARE ENGINEER
June 2023 – July 2025

Cotton Holdings Inc.   Houston, TX

- Architected scalable backend systems, by leveraging **Python** (FastAPI), **PostgreSQL**, **Redis** cache, and **Pydantic** with Azure cloud deployment, ensuring data integrity and seamless performance with reduced downtime and enhanced user experience.
- Built comprehensive real-time frontend platforms from the ground up, by developing **React.js** and **TypeScript**-based **dashboards**, large **data tables**, forms, and interactive **maps**, empowering leadership to monitor inventory and logistics with enhanced decision-making accuracy and minimized operational delays.
- Developed a cross-platform **iOS** and **Android** mobile app from scratch, by leveraging **React Native** and **Expo** to implement barcode scanning, photo capture, GPS tracking, and robust mass data visualization, streamlining asset management with improved accuracy and user-friendly workflows for field operations.
- Automated data processing and analytics, by designing **Python** tools with **Pandas** and **Polars** to automate bulk Excel file generation and validation, while building **ingestion pipelines** to integrate third-party APIs into an Azure-based data warehouse, cutting processing time and enabling faster, error-free reporting for strategic business decisions.
- Streamlined software delivery and team efficiency, by implementing CI/CD pipelines with **GitHub Actions** and **Azure DevOps** for automated testing and deployment, while leading daily stand-ups, mentoring interns, and conducting code reviews, reducing release cycles by 30% and fostering cross-departmental collaboration to deliver solutions on time.

NETWORK INFRASTRUCTURE SUPERVISOR & DEVELOPER
June 2021 – June 2023

Typhoon Texas   Katy, TX

- Reduced network deployment time over 50% by automating new **Cisco** device setup using **Ansible**, minimizing configuration errors and accelerating infrastructure expansion to support growing needs.
- Deployed custom **Python** scripts in **Docker** containers running on **Raspberry Pi** devices to automate diagnostics and health checks for network hardware and IoT systems, ensuring uninterrupted financial transactions and daily park operations.
- Enhanced park-wide network performance and reliability by architecting and maintaining **Cisco** wired and wireless infrastructure, ensuring seamless connectivity for operations and guest services, reducing connectivity-related disruptions.
- Created and implemented procedures for network monitoring and troubleshooting, leading to a significant decrease in network downtime and improving overall network reliability.

PROJECTS

Inventory-Flow.com | Python, FastAPI, React, Typescript, AWS, Docker, Postgres

- Built a full-stack inventory management system for multi-location businesses to track stock movements across multiple locations (warehouses, restaurants, etc.), manage teams and workspaces, and handle vendor tracking and management, enabling businesses to streamline operations with centralized oversight, real-time tracking and improved collaboration
- Developed using React (Vite) frontend with **TanStack** and **FastAPI** Python backend with PostgreSQL, featuring authentication and RBAC permissions site-wide, deployed on **AWS** with **Docker** and **GitHub** Actions CI/CD.

Arduino Uptime Monitoring Display | Arduino, C++, Networking, 3D Printing and CAD design

- Designed and built a custom monitoring system for my HomeLab, by programming an Arduino to periodically pull device statuses via API calls and display them on an LED pixel grid, with each pixel representing a device's real-time status.

EDUCATION

Bachelor of Science, Computer Science, Louisiana State University of Alexandria   December 2025
Associate of Science, Computer Science, Lone Star College   July 2024

SKILLS

Languages: Python | Typescript | Javascript| SQL | C++
Frameworks: React.js | React Native | FastAPI | Vite | Next.js | Expo | Pydantic | Pandas | Polars | Playwright
Tools & Platforms: Azure | AWS | Docker | GitHub Actions | Git | PostgreSQL