

Michael Cran

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EDUCATION

University of Central Florida

Bachelor of Science in Computer Science

May 2026

Orlando, FL

- Academic Cohort: Selected for UCF EXCEL, a selective STEM program capped at 300 students annually.

EXPERIENCE

Founder & Lead Software Engineer

April 2024 - Present

CoreTV

Boca Raton, FL

- Orchestrated a scalable Next.js B2B SaaS platform on Vercel, unifying 17 distinct services into a centralized portal to decrease manual support ticket volume by over 40%.
- Produced custom Python AI workflows and a bespoke RAG architecture utilizing Redis and pgvector, integrating Claude and ElevenLabs for real-time voice agents handling 1,000+ monthly interactions.
- Formulated real-time telemetry dashboards with strict role-based access control (RBAC), delivering clients granular visibility into system performance and database utilization.
- Engineered asynchronous data pipelines via Railway containers to execute 5,000+ daily API syncs across Google Search, Mapbox, and Twilio, ensuring a zero-latency frontend user experience.

Systems Engineering Intern

December 2023 - Present

International Computer Exchange

Boca Raton, FL

- Overhauled enterprise IT infrastructure and disaster recovery failover protocols across corporate domains, ensuring 99.99% system availability and a 15-minute Recovery Time Objective (RTO).
- Led full-lifecycle web architecture development using Next.js and Node.js, refining server-side rendering and asset caching to accelerate page load speeds by 40%.
- Authored Python scripts integrating Machine Learning models to automate financial data reporting, parsing and validating transaction logs to eliminate manual accounting discrepancies.

PROJECTS

MDCran Website | *Next.js, WebSockets, PostgreSQL, Vercel, ElevenLabs/Claude*

August 2025 - Present

- Produced a high-performance Next.js and Hono monorepo to showcase 50+ projects, featuring secure Redis session management. Integrated a custom API gateway with AWS and Twilio, reducing load times by over 40%.
- Constructed an interactive AI booking module (Claude/ElevenLabs) with a custom RAG layer, seamlessly syncing with Google Calendar to automate workflows and reduce scheduling times by 60%.

Army Reserve - Mercury | *React Native, Expo, Next.js, AWS (Lambda/SAM)*

August 2025 - May 2026

- Spearheaded development of a secure, serverless web and mobile application in partnership with the U.S. Army Reserve to modernize administrative workflows for thousands of active soldiers.
- Designed and executed a pitch for a high-fidelity, modular UI component system to military stakeholders, securing buy-in for a fluid web and mobile interface.
- Applied Agile Task Management frameworks to secure approval routing workflows and launch AWS SAM, Lambda, and PostgreSQL Database System serverless infrastructure.

Minecraft Creator Infrastructure | *Java, Restful APIs, JVM Tuning*

August 2018 - December 2021

- Pioneered a portfolio of 50+ custom maps and Java plugins rolled out across global creator pipelines (SSundee, TommyInnit), driving 50M+ collective views.
- Implemented a full-stack web dashboard featuring a Next.js frontend and custom backend, enabling automated asset management, configuration mapping, and 1,000+ asset file distribution.
- Drove measurable performance improvement by conducting comprehensive research, server monitoring, and profiling on game servers via Spark, utilizing hypothesis creation to eliminate memory leaks and enhance TPS by 25%.

TECHNICAL SKILLS

Languages & Frameworks: Java, Python, C/C++, PostgreSQL, JavaScript, TypeScript, HTML/CSS, React, Next.js, Angular, Node.js, CUDA, Expo, Tailwind CSS, Algorithm Design, Server Architecture, Triton, FastAPI, NoSQL, C#
Tools & Cloud: Git, Docker, Nginx, Ubuntu/Linux, Jira/Confluence, Agile/Scrum, RESTful APIs, AWS (EC2, S3, RDS, IAM, SAM CLI, Lambda), Cursor, CI/CD (GitHub Actions), Cloudflare, Vercel/Netlify, n8n/Zapier, RenderDoc
Libraries & AI: pandas, NumPy, Matplotlib, OpenCV, pgvector, LLM Integration, AI Automation