

Nicholas Morello

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SUMMARY

Software engineer focused on building systems that turn ideas into working software. Interested in how AI is changing the way we design, communicate, and ship. Currently building AI-assisted development tooling and workflows at Nextgear Capital, with a background in backend services and systems engineering.

EXPERIENCE

Nextgear Capital

July 2025 – Present

Backend Software Engineer

Indianapolis, IN

- Backend services for mobile and dealer-facing applications using Java Spring Boot, REST APIs, and microservices architecture
- Moved onto an **experimental team** within six months, focused on spec-driven development and establishing how AI-assisted workflows get built and adopted across the engineering org
- Building **AI-assisted development tooling and workflows** for engineering teams, including spec-driven methodology and implementation patterns
- Driving **cross-team collaboration and AI tooling adoption**, working to standardize how teams integrate AI into their development process

Tech: Java, Spring Boot, REST APIs, Microservices, Node.js, Claude Code, GitHub Copilot, Spec-Driven Development

Raytheon Technologies

Feb. 2023 – July 2025

Embedded Software Engineer

Tucson, AZ

- Developed **embedded C++ software for mission-critical real-time systems**, ensuring real-time performance and reliability under strict aerospace standards
- Extensive **Python integration for firmware development**, working with hardware interfaces and automating validation workflows
- Optimized code for resource-constrained embedded platforms under aerospace certification requirements

Tech: C++, Python, RTOS, Embedded Systems

PROJECTS

Hue U | AI-Powered Coloring Book Platform

- Full-stack platform that transforms photos into coloring pages using AI, with a book builder and print-on-demand ordering. Built independently from idea through production.
- Engineered **AI photo-to-line-art generation** pipeline for converting uploaded images into printable coloring pages
- Built an interactive book builder with print-on-demand fulfillment and a **Stripe-powered credit system** for purchases

Tech: Python, FastAPI, Next.js, Supabase, Google Gemini, Stripe, Docker, Google Cloud

vmello.dev | Portfolio & Live Dashboard

- Portfolio platform featuring **real-time fitness tracking** with WebSocket live data, Spotify integration, and animation systems
- Built custom iOS companion app in Swift for live health data streaming to the web dashboard

Tech: React, Node.js, Express.js, MongoDB, WebSocket, Swift (iOS), GSAP, Framer Motion, Tailwind CSS

EDUCATION

Arizona State University

Bachelor of Science in Computer Science

SKILLS

Languages : Java, C++, Python, JS / TS

Frameworks & Tools : Spring Boot, React, Next.js, FastAPI, Supabase, MongoDB, Docker, REST APIs

AI & Methodology : Claude Code, GitHub Copilot, Spec-Driven Development, AI-Assisted Workflows