Nathan Delcid

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Education (Still In Progress)

BS Computer Science *August 2021 - May 2026*
University of Colorado Boulder *Boulder, CO*
Relevant Coursework: Machine Learning, Computer Vision, Algorithms, Linear Algebra, Fundamentals of HCI, Artificial Intelligence

Universidad Carlos III de Madrid *January 2024 - May 2024*
Madrid, Spain
Relevant Coursework: Operating Systems, Software Development, Principles of Programming Languages

Skills

Languages: Python, C/C++, Java, JavaScript/TypeScript, Rust, Scala, OCaml
Frontend: React (Next.js, Vite, Svelte), Vue.js, PyWebView, GTK+, JUCE
Backend: FastAPI, Flask, Django, Node.js (WebSockets)
DBMS: Supabase, ChromaDB, MySQL, SQLite, MongoDB, Supabase
DevOps: AWS, Render, Heroku, Glitch, Vercel, Fly.io, Docker
Others: Git, Operating Systems (macOS, Linux, Windows), Soldering, Hardware Engineering, Microcontrollers (Raspberry Pi/Arduino/PCB projects), Communication, Data Analytics

Experience

Founder & CEO New York, NY
Overture *Feb 2025 – Present*

- Founded an AI-driven music technology startup developing **Maestro**, a natural language-powered music production assistant for DAWs.
- Designed product roadmap and led a team of 6 to build core NLP and audio processing models.

Computer Technician Boulder, CO
Office of Information Technology – CU Boulder *Jul 2024 – Apr 2025*

- Provided IT support for 500+ students and faculty, resolving hardware/software issues, system configurations, and network connectivity.
- Supported installations for enterprise tools (Adobe Suite, Microsoft 365, Gaussian) and performed virus/malware removals.

Extracurriculars

The Boring Company *August 2021 - August 2022*
CU Hyperloop - Tunnel Support Subteam: Rapid prototyped a 1/4th scaled version of our tunnel boring machine. Analyzed optimal materials for manufacturing

NASA COSG Consortium *August 2022 - March 2023*
WARP SPEED Team Member: Collaborated with a diverse team to build a high-altitude balloon payload, participated in skill-building workshops and project proposal activities, and prepared for advanced projects in subsequent semesters.

Projects

Binomial Options Pricing Calculator & Lattice Visualizer

A React-based visualization tool that models the Binomial Option Pricing Model with an interactive lattice diagram and real-time American option price calculations. Users can adjust parameters like stock price, time to expiration, volatility, and steps, while enjoying a responsive design, smooth UI animations, and a reset-to-default feature, all built with React 18, TypeScript, Vite, and Tailwind CSS.

Computer Using Agent

A Self-Operating Computer Framework that enables multimodal AI models to autonomously interact with desktop environments through a "see, think, act" loop. The system leverages Microsoft's OmniParser for OCR and finetunes YOLO models with Roboflow datasets for UI element detection, enabling precise on-screen navigation and command execution. Integrated support for GPT-4o, Gemini Pro Vision, Claude 3.5 Sonnet, and local models via a modular API design, with Docker-based deployment and automated evaluation for reliability.