

Experience

Beyond Cracking the Coding Interview

Author

2025

- Co-wrote the official sequel to Cracking the Coding Interview with Gayle L. McDowell et al. #1 Best Seller in Data Structures & Algorithms on Amazon (amazon.com/dp/195570600X).
- Built dsatoolkit.com, a companion site to practice all the book's problems, each linking to an AI interviewer I co-designed (tens of thousands of interviews).
- Orchestrated LLMs for large-scale codebase changes, such as translating 288 book solutions from Python to Go with few-shot prompting and test-driven retry loops.

Google

Senior Software Engineer

Nov 2022 – Aug 2024

- Built and owned the bandwidth allocation component of a new on-demand bandwidth ordering service that replaced a quarterly manual process, giving internal teams more flexibility and improving network utilization. Designed and implemented time-series algorithms to distribute projected available bandwidth across teams, balancing fairness, prioritization, and utilization when demand exceeds capacity. (C++, Go, Python, SQL)
- Point of contact for my team in a cross-functional effort to rapidly provision network capacity for Gemini. Quickly prototyped and standardized a new mechanism for prioritizing business-critical traffic while minimizing impact to existing traffic.

Software Engineer

Feb 2021 – Nov 2022

- Designed a rollout scheduler for config changes to Google's global network, halving deploy time while reducing outage risk by parallelizing deployments across continents.

AI Projects

Isomux isomux.com

2026 – current

- Building a meta-harness where multiple Claude and Codex agents and humans can collaborate in the same conversation. (React, Bun, WebSocket, Claude Agent SDK, Codex App Server)
- Isometric office UI with animated agent workers as an intuitive visual metaphor, optimized for desktop and mobile.
- Cron jobs, a shared task board, a built-in editor, terminal, diff tool, and more, all controllable by the agents via an API.

Context Composer github.com/nmamano/context-composer

2026

- Built a proxy that sits between Claude Code and Anthropic's servers, giving you (or another agent) fine-grained control over the live context: delete, rewrite, reorder, or compact individual fragments without the agent noticing. (Bun, TypeScript)

Wall Game wallgame.io

2025

- A full-stack online board game with AIs as first-class citizens through a bot protocol. (React, TypeScript, WebSocket, PostgreSQL)
- Implemented a Negamax-based engine and adapted an AlphaZero-style engine, training a model to superhuman strength via self-play. (C++, PyTorch, TensorRT, ONNX)

Education

PhD + Master's in Computer Science University of California Irvine, GPA 3.83/4

Sep 2015 – Dec 2019

- Co-authored 9 peer-reviewed papers on algorithm design, including as main author in tier A conferences like ICALP and ISAAC. The papers describe new algorithmic improvements in graph theory (routing), computational geometry (clustering, matching, TSP), and computational biology (network alignment) (scholar.google.bg/citations?user=LLuligEAAAAJ).
- Led a research project from inception to publication: came up with an original problem, engaged 3 colleagues to work on it, and collaborated with them to solve it. We invented an algorithm for the knight's tour problem (cited by Donald Knuth).

B.E. in Computer Science Polytechnic University of Catalonia, GPA 3.8/4 (99th percentile)

Sep 2011 – Jul 2015

- Created SANA, a C++ biological network alignment tool that uses simulated annealing. It has 100+ citations and has been actively maintained by 50+ collaborators for 10+ years, with 2,000+ commits (github.com/nmamano/SANA).