

Daniel Fernandez

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EDUCATION

Queens College, City University of New York (CUNY)

Expected Dec 2027

B.S. Computer Science — GPA: 3.47

Flushing, NY

- Relevant Coursework: Cloud Computing, Operating Systems (C++/C), Databases (SQL), Data Structures & Algorithms (Java), Advanced Python Programming, Software Engineering, Object-Oriented Programming (Java)

EXPERIENCE

Dow Jones & Company

Jun 2026 – Aug 2026

Software Engineer Intern – Wall Street Journal Web Brand

New York, NY

- Led a cross-functional intern team to build an AI-powered testing harness – packaged as a Claude Skill – that maps cross-repo code dependencies and auto-generates Jest unit tests and Playwright e2e tests informed by Jira context.
- Patched a structural rendering issue within a shared component library, resolving a bug that injected duplicate HTML tags and ensuring correct semantic and SEO baseline compliance across 3 site sections.
- Root-caused a rendering bug in a WSJ content module, tracing missing props in Next.js SSR data-fetching to broken visual output and broken hyperlink behavior, and documented findings for senior engineering handoff.
- Merged production code to dynamically swap news buckets on the WSJ homepage, improving content delivery for 4.1M+ subscribers.

CUNY Tech Prep

Jul 2025 – Jun 2026

Software Engineer Fellow - Web Dev Track

New York, NY

- Designed the relational data model and Figma wireframes for M.A.P.S., a full-stack academic planning platform (React, Node.js, Express, PostgreSQL) built to scale for 2,000+ Queens College undergraduates, centralizing course mapping, professor metrics, and schedule creation.
- Built a Puppeteer-based scraping pipeline to source real-time course data and implemented 10+ REST API endpoints — including database transactions and fallback logic — alongside Firebase Authentication and core React frontend pages.
- Led development for a 4-person team, assigning tasks, reviewing team members' work, and directing key technical decisions within an Agile fellowship structured around Scrum routines, sprint cycles, and Git/GitHub workflows.

Google X BASTA

Mar 2026 – Jun 2026

Software Engineer Mentee

Remote

- Selected for the Google Software Engineering Mentorship Program, receiving weekly 1:1 mentorship from a Google engineer to strengthen data structures, algorithms, and technical interview problem-solving skills.

PROJECTS

codeburrow | *Python, tree-sitter, Git, VoyageAI, ChromaDB*

Jul 2026 – Aug 2026 | [GitHub](#)

- Built and packaged a pip-installable hybrid code search CLI, fusing BM25 keyword search with Voyage AI semantic embeddings via Reciprocal Rank Fusion to improve retrieval relevance over keyword or vector search alone.
- Designed a multi-language AST chunking pipeline with tree-sitter (Python, JavaScript, TypeScript/TSX), parsing source files into function- and class-level chunks for higher-precision embedding and retrieval.
- Implemented git-aware incremental indexing via a self-installing post-commit hook, re-embedding only changed files and safely extending a repo's existing hook interpreter (shell, Python, Node, Ruby).

codejam | *Java, Spring Boot, Docker, React, TypeScript, WebSockets*

Aug 2026 – Present | [GitHub](#)

- Built a real-time collaborative code editor (React, TypeScript, Monaco, Yjs) supporting simultaneous multi-user editing via conflict-free merging over a custom WebSocket protocol.
- Architected a Java backend that orchestrates network-isolated, resource-limited Docker containers for sandboxed code execution, using multithreading and timeout handling to safely run untrusted code via a Spring Boot REST API.
- Designed a Spring Boot WebSocket relay for real-time collaborative edits and live multi-cursor presence, using tagged message framing to multiplex both data streams over a single connection per client.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Java, Python, SQL (Postgres), C++, HTML/CSS, Bash

Frameworks & Libraries: Node.js, Spring Boot, Next.js, React.js, Express.js, GraphQL, Playwright, Tailwind

Developer Tools: Git, Claude Code, Docker, VS Code, Figma