

Daniel Firoozabadi

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EDUCATION

University of California, Berkeley

Berkeley, CA

B.S. in Electrical Engineering and Computer Sciences (ECE)

Expected May 2028

- GPA: 3.5/4.0
- Coursework: Data Structures & Algorithms, Computer Architecture, Optimization Models, Discrete Math & Probability
- Activities: AI Entrepreneurs at Berkeley, IEEE, Ascend Berkeley – Tech Chair, YC Startup School 2026, 2x SIG Discovery Day, Point72 Academy Spring Sessions
- **Goldman Sachs** Emerging Leaders Series – Software Engineering Track: selected through competitive review and built quantitative analytics infrastructure for a mutual fund forecasting platform

EXPERIENCE

Capital One

June 2026 – Present

Software Engineering Intern

- Cut Excel reconciliation from 4 weeks to under 2 days by building an agentic RAG system with LangGraph, Chroma, and PyArrow for a \$10B-spend ledger migration.
- Returned discrepancy lookups in under 3 seconds across 6,500+ SOX accounts via hybrid graph and semantic retrieval over 6 data sources and 6M+ rows.
- Enabled 20+ Finance analysts to self-serve reconciliation by deploying a containerized ReAct agent with Docker, Kubernetes, an 8-tool toolkit, and a Gradio interface.

UC Berkeley Sky Computing Lab

July 2026 – Present

Undergraduate Researcher

- Extending Delta Fair Sharing (Stoica & Zaharia et al.) to fairness-aware LLM inference scheduling under the guidance of Dev Bali.
- Implementing scheduling hooks in a forked SGLang inference engine to design a fairness policy for hybrid prefill/decode batching and bound latency interference across concurrent clients.

Stanford Graduate School of Business

January 2026 – May 2026

Software Engineer – AI Security, via Ascend Berkeley

- Led architecture planning and built an end-to-end multi-agent penetration testing system coordinating reconnaissance, vulnerability classification, validation, and report generation with AutoGen, PentAGI, Nmap, and Nuclei.
- Implemented human-approval gates, target allowlists, append-only audit logging, and an emergency kill switch; confirmed 5 valid vulnerabilities from approximately 10 findings in controlled environments.

Olfera

May 2025 – August 2025

Software Engineering Intern

- Built and deployed backend infrastructure on AWS Amplify, integrating authentication and CI/CD pipelines across development, staging, and production environments.
- Designed 7+ normalized MySQL schemas and secure GraphQL/AppSync endpoints with role-based access control, reducing redundant queries by approximately 40%.

Runopt

January 2025 – May 2025

Software Engineering Intern

- Developed a PyVista 3D visualization framework for civil-site design, enabling engineers to simulate stormwater detention layouts in under 10 seconds per run.
- Implemented a knapsack-based optimization pipeline across 9+ UGDC models and integrated OpenMDAO, reducing cross-module runtime by approximately 30%.

PROJECTS

Tandem | [Demo](#) | [GitHub](#) | *TypeScript, React, Node.js, Anthropic SDK, WebSockets*

- Built a real-time collaborative coding environment enabling multiple developers to share, branch, and replay live AI sessions simultaneously.
- Advanced to the final partner interview for a16z Speedrun after developing the prototype at the Stanford x Google DeepMind Hackathon.

ShopSync | [GitHub](#) | *Next.js, Supabase, Vercel, OpenAI API*

- Built a full-stack LLM recommendation platform that extracted and normalized inventory data to generate personalized product matches and business listing suggestions.
- Implemented ingestion and embeddings-based retrieval pipelines over scraped and API-sourced product data in Supabase; selected as a Falling Walls Lab SF finalist.

TECHNICAL SKILLS

Languages: Python, Java, C, C++, SQL, JavaScript, TypeScript

Frameworks/ML: PyTorch, TensorFlow, NumPy, Pandas, React, Node.js, LangGraph, LangChain, AutoGen

Tools: Linux/Unix, AWS (Amplify, DynamoDB), Docker, Kubernetes, Git, MySQL, PostgreSQL, Supabase, CI/CD, REST APIs, GraphQL, Terraform