

# MANAN BHARGAVA

[manan.berkeley@gmail.com](mailto:manan.berkeley@gmail.com) | [linkedin.com/in/manan-bhargava/](https://linkedin.com/in/manan-bhargava/) | [github.com/mananb77](https://github.com/mananb77) | 408-752-6246

## EDUCATION

### University of California, Berkeley

Double Major in Computer Science and Data Science, Minor in Entrepreneurship and Technology

May 2025

GPA 3.6/4.0

## TECHNICAL SKILLS

**Languages:** Python, Java, HTML, CSS, Javascript, React, SQL, Regex, C, C++, RISC-V

**Relevant Coursework:** Software Engineering • Data Engineering • Deep Neural Networks • Machine Learning • Artificial Intelligence

• Databases • Security • User Interface Design • Algorithms • Full Stack Development • Machine Structures • Devices

**Tools:** Github, VSCode, Agile Tools (Jira, Linear), Jupyter Notebook, Excel, Tableau, Figma, Miro, Canva, Adobe, Cursor

**Frameworks/Libraries:** AWS, Docker, Google Cloud, Spark, FastAPI, ChromaDB, MongoDB, PyTorch, Sklearn, Pandas

## EXPERIENCE

### Software Development Engineering Intern, Amazon Lab126, Sunnyvale, CA

May 2025 – Aug 2025

- Architected enterprise monitoring solution (Python/AWS CDK) with 5-stage data collection pipeline (Telegraf, MQTT, InfluxDB, Grafana) across 250+ hosts, 1.5K devices (\$100M infrastructure), reducing MTTR from 60 to <15 minutes
- Developed IaC solution (TypeScript/AWS CDK) with automated deployment and custom Telegraf plugins (including custom log parsing with 99.5% accuracy), reducing incident investigation by 60% and saving oncall engineers 50-60 minutes daily
- Built analytics system (Python/Boto3/InfluxDB) consolidating 5+ data sources, transforming 80% of undetected issues into proactive incidents and reducing issue diagnosis from 1-2 days to <4 hours

### Senior Developer, CS Education Research & Development, UC Berkeley, CA

Aug 2024 – May 2025

- Built automated grade synchronization platform integrating GradeScope, PrairieLearn, iClicker APIs (Python/Pandas/Selenium) for 200+ students, reducing TA workload 90% (10hr/wk → 1hr) and eliminating calculation errors
- Deployed GCP cloud infrastructure with Docker, Cloud Run cron jobs, and GitHub Actions CI/CD at 2¢/day operational cost
- Engineered ETL pipeline with batching, exponential backoff retry, dynamic spreadsheet formula injection logic across multiple LMS platforms, maintaining <5min sync times for 100+ API calls

### Software Engineering Intern, USA Launching Pad Inc, San Francisco, CA

May 2024 - Aug 2024

- Built client management system integrating 6+ APIs (HubSpot, LinkedIn, HeyReach AI, Instantly AI, Clay AI) via Google Sheets with custom Python/JavaScript—slashing onboarding 97% (10 weeks → 3 days) and boosting efficiency 60% for 15+ clients
- Built real-time dashboards aggregating outreach, interview, and CRM data through custom scripts and ETL pipelines—cutting reporting time 75% and accelerating insights 5x
- Designed end-to-end sales pipeline automation via Google Apps Script across lead generation, interviews, and CRM—enabling seamless scaling and autonomously resolving 90% of client questions

## PROJECTS & FREELANCING

### CoWeave.ai React, AWS, GCP, Docker, Kubernetes, [Node.js](#)

Aug 2025 - Present

- Architected full-stack Prompt Optimization Studio for CoWeave with React/TypeScript frontend, Node.js/Express backend, and PostgreSQL database, integrating with Claude Sonnet 4.5 API, building with AI
- Built production infrastructure on AWS EKS with Docker containerization, Kubernetes auto-scaling (2-20 pods), and CloudWatch monitoring, handling 500+ concurrent users with sub-200ms API latency and 99.9% uptime

### RAG-Based Chatbot for UC Berkeley DNA Sequencing Lab React, AWS, FastAPI, Docker, ChromaDB, Llama

Feb 2025 - May 2025

- Developed a full-stack RAG chatbot system, integrating FastAPI/Flask backend, React UI, and Dockerized deployment
- Built core retrieval pipeline with ChromaDB, embedded lab documents, and integrated LLMs (Llama-3.5)
- Implemented lab API integrations to track usage and support lab-specific queries like sample status and experiment records

### DeepFake Social Engineering Scam Protector Python, Google Cloud, OpenAI

Jan 2024 - May 2024

- Developed video call transcript analysis using Google Cloud Speech-to-Text, OpenAI, and QoS data to flag suspicious users
- Built social engineering scam scenario database
- Prototyped MFA system with real-time notifications via Twilio and Google Meet app integration

### File Sharing & Revocation System Golang

Sep 2023 - Nov 2023

- Developed a file-sharing system including store, load, append, user invitations, & revocation (1500+ lines, 7 helper funcs)
- Created encryption & decryption pipelines, utilized Google UUID, HMAC, Signatures, RSA Enc, Symmetric Enc, JSON Marshal
- Wrote & passed 45+ integration test cases, incorporated: integrity, confidentiality, authenticity with cryptographic security
- Performed server management, interacted with datastore (public), keystore (private), handled multisession network users

## AWARDS & HONORS

1st Place Product Management Pitch Competition May 2024 • 1st Place IBM Social Good Datathon Nov 2022 • Best Course Coordinator at Sutardja Center for Entrepreneurship & Technology May 2022 • 1st Place Jubilee Media x Berkeley Innovation Design-a-thon Feb 2022 • **Eagle Scout** Oct 2021