

Vivek Garg

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EDUCATION

University of California, Los Angeles (UCLA)

June 2026

Bachelor of Science in Computer Science and Mathematics/Economics

GPA: 3.7

Relevant Courses: Operating Systems, Data Structures and Algorithms, Computer Architecture, Discrete Math, Linear Algebra, Probability Theory, Programming Languages and Paradigms, Machine Learning, Database Systems

EXPERIENCE

American Express

June 2025 – Aug 2025

Software Engineering Intern

Phoenix, AZ

- Independently built and deployed **10+ BigQuery** data validation pipelines orchestrated via Airflow, processing **100M+** monthly transactions with **99.99981% accuracy** to prevent erroneous rewards payouts, while ensuring regulatory compliance during American Express's transition to Tier 2 banking status.
- Collaborated with compliance, finance, and product teams to translate complex regulatory requirements into scalable data validation rules, **reducing manual review processes by 80%**.
- Built enterprise **RAG chatbot generator** using **Ollama** and **pgvector**, enabling autonomous team chatbot creation from confluence pages, PDFs, and GitHub repositories with compliance-aware content scrubbing and authenticated access controls.

Netskope

Feb 2025 – May 2025

Platform Engineer Intern

Los Angeles, CA

- Built AI-powered alert analysis framework integrating **AWS Bedrock**, **Gemini**, and **ChatGPT** with monitoring systems, processing **80 alerts per minute** and **automating incident correlation across 100+ data centers** to accelerate service owner engagement and resolution.
- Developed automated monitoring portal using React and Keep (AIOps), **reducing engineering workload by 55%** while implementing **RBAC security controls** and **multi-cloud data lake integrations across GCP environments**.
- Architected 'MON 3 Demo Dashboard' in Grafana serving **hundreds of engineering users**, providing real-time KPI insights and accelerating **root cause analysis** through **Prometheus** and **Sumo Logic** integration.

Sprih

June 2024 – Nov 2024

Data Science Intern

Remote

- Architected and deployed end-to-end **Python ETL** pipeline processing 700,000+ sustainability data points from PDFs to **AWS S3**, improving data accuracy by 60% and enabling reliable **RAG application** functionality for **downstream ML models**.
- Implemented a robust test suite using **pytest** and **Hypothesis**, boosting code coverage by 40% and cutting mission-critical failures by 98% in production environments.

PROJECTS

SnapShot | *Python, Flask, MongoDB, Lens Studio, TypeScript, Google Gemini API, AR*

Apr 2025

- Architected and developed a real-time AR sports insights application, building the front-end with **Lens Studio** and **TypeScript** for Snapchat Spectacles, and integrating a **Python/Flask** backend with **MongoDB**.
- Implemented **AI** video recognition from live camera footage, integrated **Google Gemini API** for context-aware voice Q&A, and leveraged **NBA API** with **Matplotlib** for dynamic data visualization and real-time updates.

SpotiFriends | *Next.js, Docker, Postgres, TypeScript, Express.js*

Apr 2024 – Jun 2024

- Implemented user authentication (**OAuth**) and social features (friend requests, playlist sharing) in a full-stack music app utilizing **Next.js** for the front-end and **Express.js** for the back-end.
- Designed and maintained a **PostgreSQL** database utilizing **Prisma** as an ORM to facilitate user interactions.

TECHNICAL SKILLS

Languages: Python, Java, C++, JavaScript/TypeScript, SQL, R, Bash, HTML/CSS

Frameworks and Databases: FastAPI, Langchain, GraphQL, ASP.NET, PostgreSQL, MongoDB

Tools and Cloud Platforms: Git, Docker, Kubernetes, Prometheus, AWS, Google Cloud Platform, RAG, REST API