Nidhi Prajapati

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SUMMARY

Computer Science undergraduate (B.S., December 2026) focused on building and evaluating **LLM**-based systems. Designs **agentic workflows** in **LangGraph**, builds labeled **evaluation** harnesses to measure hallucination detection, and researches hallucination monitoring for AI-generated radiology reports. Works in **Python**, FastAPI, and **pgvector** with automated tests and debugging against real services. Seeking an **AI/ML Engineer** role.

EDUCATION

B.S. in Computer Science | California State University, East Bay *Hayward, CA · Expected Dec 2026*

Relevant Coursework: Machine Learning, Artificial Intelligence, Data Structures, Operating Systems, Computer Architecture, Web Development

RESEARCH EXPERIENCE

Hallucination Monitoring in AI-Generated Radiology Reports *In Progress · Unpublished*

- Designing a reconstruction-based hallucination-monitoring framework for LLM-generated radiology Impressions, comparing single-modality (text-only) and dual-modality (text + X-ray image) reconstruction architectures on the Findings-to-Impression task.
- Authoring a controlled-perturbation evaluation protocol (negation reversal, laterality/severity swaps, unsupported-diagnosis insertion) to generate ground-truth labeled hallucinations for benchmarking detection with AUROC/AUPRC and RadGraph-based clinical concept metrics.
- Structuring the evaluation around public, credentialed-access chest X-ray datasets with paired Findings/Impression text, and proposing Google ADK to orchestrate the generation-and-monitoring agent pipeline.

PROJECTS

Autonomous Resume Reviewer Agent *GitHub*

Python, FastAPI, LangGraph, pgvector, Next.js, TypeScript

- Built a 4-node LangGraph pipeline (extract, map, improve, critique) that rewrites resume bullets against a target job description and surfaces the model's reasoning behind every change.
- Wrote an evaluation harness that injects known hallucinations and scores the critique node against ground truth, raising detection recall from 87% to 100% at a 13% false-positive rate.
- Cached job-description embeddings in Postgres/pgvector, cutting repeat lookups 125x.

SignalOps — Log Observability & Alerting Platform *GitHub*

Python, FastAPI, OpenSearch, Redis Streams, Postgres, Docker, GitHub Actions

- Built 3 alert rule types with flap damping over a Postgres incident store, measuring detection latency of 26–126 s with 0 false positives across 1,200 evaluation ticks.
- Load-tested at **1,000,000 documents** (136 MB on disk), sustaining **19,810 docs/sec** bulk ingest with sub-15 ms p95 search; replaced deep from/size pagination with a search_after cursor, ~13x faster at depth and removing the 10,000-result ceiling.
- Validated with 92 tests running against real OpenSearch, Postgres, and Redis containers in GitHub Actions CI, holding 63% line coverage on every push.

EXPERIENCE

Learning Assistant | CSUEB STEM Lab *Hayward, CA · Jan 2023 – Apr 2024*

- Coached 20–50 students per term one-on-one and in small groups, mainly in mathematics, diagnosing where each student was actually stuck.

LEADERSHIP EXPERIENCE

President | HackHayward — Nonprofit Hackathon *Hayward, CA · 2024 – Present*

- Planned and delivered 2 technical sessions from scratch, including a hands-on Google ADK workshop on agent memory and MCP and a VC fireside chat on AI investment trends.
- Raised $20,000 in total funding ($18,000 sponsorship) by cold-pitching and closing a 12-sponsor network including Google, AWS, Amazon, IBM, Perplexity, Cursor, and Red Bull.

Vice President, Technical Events | Google Developer Groups on Campus, CSU East Bay *Hayward, CA · Aug 2024 – Present*

- Planned 5+ hands-on workshops and speaker events on emerging technologies while running club operations across 2 teams, Technical and Finance.

TECHNICAL SKILLS

AI & LLM: LangGraph, **LLM APIs**, **agentic workflows**, **prompt engineering**, LLM **evaluation** harnesses, **hallucination** detection, vector **embeddings** (pgvector), **retrieval** patterns, Google ADK, MCP

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

Data: PostgreSQL, pgvector, Redis Streams, OpenSearch, data modeling

Engineering: object-oriented programming, **data structures & algorithms**, **debugging**, FastAPI, REST API design, Next.js, React, microservices, event-driven architecture, system design

Testing & Quality: pytest, Testcontainers, integration testing against real services, code coverage, load testing

Tools & Cloud: Cursor, Claude, Google Antigravity, Docker, GitHub Actions CI/CD, Git, AWS, GCP, Unix/Linux