HEMNAATH BALASUBRAMANI

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EDUCATION

Northeastern University, Khoury College of Computer Sciences Jan 2026 – May 2028
Master of Science in Computer Science Boston, MA
Seeking a Spring 2027 co-op or Summer 2027 internship in backend, AI, or test automation; open to relocation.
Coursework: Programming Design Paradigm (Java), Database Management Systems; Fall 2026: NLP, IR

Sathyabama Institute of Science and Technology Jul 2020 – May 2024
Bachelor of Engineering in Computer Science | CGPA: 8.39/10 Chennai, India

TECHNICAL SKILLS

Languages: Python, Java, Go (Golang), SQL, Bash

Backend and Systems: REST and gRPC APIs, FastAPI, WebSockets, PostgreSQL, asyncio, job queues, Docker, Linux

AI and ML: LLM agents, LangGraph, MCP, RAG, vector search, Claude, Qwen, vLLM, vision-language models

Testing and Delivery: pytest, TestNG, Cucumber, Playwright, Selenium, Postman, CI/CD (GitHub Actions, Jenkins)

PROFESSIONAL EXPERIENCE

Northeastern University Sep 2026 – Present
Teaching Assistant, PHIL 5110 Responsible AI (graduate) Boston, MA

- Grade 100 papers a week for a section of 100+ students: case studies of deployed AI systems, discussions, exit tickets.
- Assess how students weigh bias, privacy risk, and regulatory gaps in real AI systems; hold 2 office hours a week.

EPAM Systems Jul 2024 – Dec 2025
Junior Software Engineer Hyderabad, India
EPAM AI initiatives

- Designed and implemented agents, pipelines, and MCP components on EPAM's ELITEA platform in a team of four, cutting test-case creation from 2 to 3 days by hand to about 3 hours, with positive, negative, and edge cases.
- Ran the generated tests in Playwright with locator collection and code generation; demoed it to two enterprise clients.

Fares team, global rideshare platform

- Validated rider and driver fares across Indian and Australian cities, testing 20+ endpoints in Go, mostly over gRPC.
- Maintained 5+ CI/CD pipelines, fixed 20+ flaky tests stuck below 95% stability, and took on-call every 15 days.
- Migrated 100+ legacy Java tests to Cucumber and TestNG on Jenkins.

PROJECTS

Site Safety Watch, local camera safety agent (team of 3, lead) Oct 2026
Dell x NVIDIA hackathon | github.com/hemnaath04/site-safety-watch

- Built in one day on a Dell Pro Max GB10: Qwen3.6 35B on local vLLM reads a frame in about 1.0 s and posts a blocked exit to Slack with the evidence frame and OSHA rule; 0 errors at 24 simulated cameras.
- Moved alerting from a 63 s agent turn (135,359 input tokens) to a 0.5 s command job, keeping the model for frames.
- Designed and ran the eval: with voting on, 3 of 3 blocked exits caught and 0 false alarms on 7 clear clips.

job.os, LLM job-search platform with grounding guards Jun 2026 – Present
Python, LangGraph, FastAPI, PostgreSQL | github.com/hemnaath04/job-os

- Built a LangGraph resume agent whose guards drop unverified numbers and invented entities and cap growth at 15%.
- Capped a table growing about 47 MB an hour with a 30 day horizon and an oldest-first row limit; 1,600+ pytest tests.
- Replaced a live fan-out across job-board APIs with an hourly crawl into a Postgres index of about 20,900 boards, cutting search from 8 to 60 seconds to typically under 300 ms.

Canary Pact, multi-agent decision system (team of 4) Sep 2026
Glasswing hackathon | github.com/hemnaath04/glasswing-canary-pact

- Built the LangGraph orchestrator that routes a proposed cost cut to 10 department agents and a challenger; 255 tests.