

Aditya Gandhi

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EDUCATION

Purdue University, West Lafayette

August 2023 – May 2027

Bachelor of Science (B.S.) in Computer Science Honors

GPA: 3.2/4.0

Concentrations: Software Engineering, Machine Intelligence; Minor in Mathematics

Coursework: Analysis of Algorithms, Data Mining & ML, Statistical Methods, Competitive Programming, Robotics

Activities: Teaching Assistant (Analysis of Algorithms), Developer for Hello World (Purdue's Largest Hackathon)

Achievements: AMD Track at StarkHacks, Alpha Lambda Delta Honor Society, Dean's List

EXPERIENCE

Amazon

June 2026 – August 2026

Software Development Engineer Intern

Bellevue, WA

- Designed and productionized **105+ AI-generated native Kotlin UI tests** covering Amazon Flex's two largest screens, replacing manual suites in a daily release pipeline used by **40+ engineers**.
- Engineered reusable agent workflows and workspace-specific navigation and error guidance, reducing repetitive prompting and human intervention.
- Standardized test execution and implemented framework workarounds, reducing a 40-test validation cycle from **8 hours of manual testing to at most 2 hours**.

Duality Lab

January 2026 – May 2026

Undergraduate Researcher (ML Systems)

Purdue University

- Led a 5-person team to develop a **cost-constrained agent runtime** for OpenSWE, enforcing token, tool-call, and wall-clock budgets as first-class runtime constraints.
- Designed and implemented policy-driven model routing and degradation, recovery policies across **12+ failure categories**, and structured per-node telemetry.

Privacy-Preserving Machine Learning Lab

August 2025 – December 2025

Undergraduate Researcher (Machine Learning)

Purdue University

- Developed PyTorch-based OOD detection for distribution shift; evaluated AUROC, FPR@95, and conformal prediction for uncertainty estimation and failure detection.
- Modularized research code into reusable libraries and evaluation harnesses; standardized outputs and built reproducible two-stage Apptainer (Singularity) containers for consistent benchmarking.

Retailmind

June 2025 – August 2025

Software Engineering Intern (Distributed Systems) | Forecasting, Prophet, Autogluon

- Architected a distributed, multithreaded backend processing data across **4,500+ store-department entities**.
- Engineered a low-latency hierarchical forecasting service with **sub-300ms inference latency**.
- Designed asynchronous pipelines that maintained availability under compute-intensive peak loads.

Indegene

June 2024 – August 2024

Software Engineering Intern (Systems) | Python, RAG, NLP, OpenAI

KA, India

- Developed a **RAG-based microservice** to analyze large regulatory documents for compliance review.

PROJECTS

HypeTrade | GCP Cloud Run, Redis, CI/CD, FinBERT, React, DevOps

- Architected a highly available backend for a stock sentiment analysis platform on **GCP Cloud Run**.
- Automated deployments with CI/CD pipelines reducing deployment time by **90%**.
- Optimized FinBERT inference through dynamic batching, reducing inference cost by **56%**.
- Led a 6-developer team through Purdue's pre-incubator as **Scrum Master**, driving sprints and DevOps practices.

Systems Programming (Compiler & Shell) | C, C++, Lex/Yacc, x86 Assembly, Linux

- Built a **C-to-x86 compiler** and **Unix shell** with memory allocation, control flow, and signal handling.

TECHNICAL SKILLS

Languages: C++, Python, Java, C, SQL, TypeScript, JavaScript, Kotlin, Swift, C#, Bash

Systems & Infrastructure: Docker, GCP, Redis, CI/CD, Git, Linux, REST APIs, Kubernetes, Ansible, Jenkins

Frameworks & Tools: React, Vite, Node.js, LangChain, Flask, HuggingFace, Pandas, NumPy, Gradle, LaTeX