Adamya Singh

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EDUCATION

Rutgers University   New Brunswick, NJ
B.S. in Computer Science and Data Science | GPA: 3.6   *Aug 2023 – May 2027*

- **Relevant Coursework:** Artificial Intelligence, Machine Learning, Deep Learning, Algorithms, Data Structures, Discrete Mathematics, Computer Architecture
- **Leadership & Activities:** USACS (CS Club) — Tech Team Lead & Executive Board Member, STAR (Space Technology Association at Rutgers)
- **Honors & Awards:** Winner, Verizon Smart Campus Challenge 2025 (AI-powered scheduling platform); Dean's List; Eagle Scout

EXPERIENCE

Software Engineering Intern   Nov. 2025 – Present
Aviro (YC-backed enterprise AI agents platform)   *Remote*

- Contributing to a full-stack document-to-HTML platform (Next.js 15, TypeScript, FastAPI, Supabase) that prepares enterprise documents for long-horizon AI agents built on Aviro's reinforcement learning runtime
- Extending backend services in **FastAPI** for document ingestion, replication, and sync/progress tracking, designing clean APIs between vision/LLM calls, agentic edit loops, and storage
- Building advanced **TypeScript/Next.js** UX for multi-page document editing, placeholder/image workflows, and prompt-history/analytics views to debug and improve agent performance in production

Software Engineer (MVP Development), Fusen Fellow   May 2025 – August 2025
rebootED (tryrebooted.com, backed by Fusen World Accelerator & Google for Startups)   *Atlanta, GA*

- Built enterprise-grade L&D platform from zero to MVP, architecting scalable backend (Spring Boot + PostgreSQL) with JWT auth, REST APIs, and real-time content delivery; designed to support **10K+ concurrent learners**
- Led user research across **15+ enterprise tech orgs** to define high-impact features for L&D, translating feedback into validated product specs for **large-scale deployment scenarios**
- Integrated AI-driven course generation using structured prompting pipelines, reducing content creation time by **80%** while ensuring quality and adaptability across diverse enterprise training needs
- Engineered a production-ready frontend (Next.js + TypeScript) with role-based dashboards, real-time analytics, and mobile-first design; scalable to orgs with **1,000+ employees**

Undergraduate Research Assistant - Computer Vision   Jan. 2025 – Present
Rutgers University, Computer Science Department   *New Brunswick, NJ*

- Investigating vision-language model (VLM) failures in negation comprehension using **225K+ multimodal medical images** from the CheXpert dataset
- Benchmarked **3+ GenAI VLMs** (e.g., **CLIP, BioMedCLIP**) on negation-sensitive tasks using **PyTorch**; developed domain-specific evaluation tools to identify reasoning failures

PROJECTS

RU-Networking | *Next.js, OpenAI GPT-4o, Assistant API, RAG, PineconeDB*

- Built a full-stack AI-powered course planning assistant delivering **real-time, personalized recommendations** to **70,000+** Rutgers students, leveraging Retrieval-Augmented Generation (RAG)
- Engineered advanced AI workflows with function calling, tool orchestration, and live streaming responses via Server-Sent Events, enabling a **chat experience at production scale**
- Reverse-engineered undocumented endpoints and developed a highly-parallelized Python scraper to extract and clean a **1M+ line dataset**, powering a custom SQL-backed recommendation engine

AtomicCoach: LLaMA 3 Fine-Tuning | *LLaMA 3 8B, LoRA, QLoRA, HuggingFace, PyTorch*

- Built a scalable AI-powered behavioral coach by fine-tuning Meta's **LLaMA 3 8B** LLM on *Atomic Habits*, enabling high-quality, personalized habit formation guidance
- Created a **2,300+ Q&A dataset** and fine-tuned using **LoRA** and **QLoRA**, reducing memory requirements by **60%+** and making training viable on laptops

Technical Skills

Languages: Python, Java, C/C++, JavaScript, HTML, CSS, SQL, R, Bash
Frameworks / Tools: React, Node.js, Git, AWS S3, Ollama, Linux, Tableau, MongoDB
Libraries / ML: DSPy, HuggingFace, PyTorch, NLP, VLA, Computer Vision, Reinforcement Learning,