DEVANSHU SEN PANDEY

San Francisco, CA | 314-320-9682 | devsenp@yahoo.com | www.devanshu.xyz | LinkedIn: devanshusp | GitHub: devanshusp

Education

Grinnell College — Expected Graduation: December 2026

B.A. in Computer Science, Concentration in Neuroscience and Statistics — *GPA: 3.95 (Dean's List)*

- **Relevant Coursework:** Computer Vision; Operating Systems; Computational Theory; DSA & OOP; Statistical Modeling; Software Engineering & Design; Machine Learning; Linear Algebra; Multivariable Calculus; Number Theory
- **Campus Jobs:** CS Teaching Assistant (Computational Theory), Data Analysis Student Mentor, Residential Assistant

Technical Skills

Languages/Frameworks: Python, Java, C, SQL, PyTorch, scikit-learn, pandas, numpy, Matplotlib, Next.js, HTML/CSS
Tools: MLflow, Milvus, GCP, AWS, GitLab CI, Docker, Kubernetes, Grafana, Prometheus, Vault, Sentry, Memray, Git, uv
Awards: 4x hackathon winner (HackMIT, CalHacks, HackGC x2); AP Scholar with Distinction; 35 ACT (99th percentile)

Experience

NVIDIA — January 2025 – August 2025

AI/ML Software Engineering Intern — *Santa Clara, CA*

- Co-developed **AI-powered** hardware performance data analysis tool, answering queries from VPs, engineers, and marketing, saving **$400k+ annually** by automating data fetching, cleaning, and analysis.
- Engineered fault-tolerant **SQL query engine** that iteratively relaxes constraints on empty queries and contextually replaces dropped items to find semantically related data, increasing successful data retrieval rates from **54% to 99%**.
- Made automated **LLM evaluation** pipeline leveraging DeepDiff (Python package) and regex-based JSON validation, handling grading for approximately **85%** of test outputs and cutting evaluation time from **2 hours to 20 minutes**.
- Built and pitched **natural language video search engine** MVP using **CLIP** embeddings, **VLM** key frame classification, LLM query parsing, and **FAISS** vector search; picked for production by Autonomous Vehicle Data team.

NVIDIA — January 2024 – August 2024

Performance Engineering Intern — *St. Louis, MO*

- Wrote scripts for **GPU performance testing** using **Python** (**Tesseract OCR**, **OpenCV**, **PyAutoGUI**) to automate game menu navigation, controls, and settings changes, reducing manual testing time by **5+ hours per game**.
- Improved LLM output accuracy from sub-**40% to 95%** by implementing prompt strategies (**Retrieval-Augmented Generation**, **Multimodal CoT reasoning**) and **DSPy** automated prompt optimization.
- Implemented **MLflow** experiment tracking across ML pipeline, enabling one-click experiment reproduction, reducing debugging time, and exposing dozens of model issues through enhanced observability.

LaunchCode — July 2023 – December 2023

Web Development Teaching Assistant — *St. Louis, MO (Remote)*

- Facilitated classes, answered questions, and graded work for **20+ students** to grasp full stack and core programming concepts (**databases**, **networking**, **unit tests**, **Java**, **JavaScript**, **React**, **SQL**, **MongoDB**, **HTML/CSS**, **Git**).

Improve The Dream — January 2022 – December 2023

Software Engineer (Volunteer) — *Fairfax, VA (Remote)*

- Designed and launched americaschildrenact.com, driving **50,000+** unique visitors; developed ad-hoc web-based SMS tool enabling scheduled and personalized messaging to **3,500+** members.

8by8 — June 2021 – October 2022

Software Engineering Lead (Volunteer) — *Palo Alto, CA (Remote)*

- Top contributor and manager of an **8-person** development team for the open-source challenge.8by8.us; delivered **TypeScript**, **React**, and **Firebase** features, regularly finishing Agile sprints **one-two weeks early**.

Projects

AI Podcast (YouLearn.ai, YC X25 Backed) | *Python, FastAPI, Google TTS, Pub/Sub, TypeScript, Next.js* — **July 2025**

- Shipped personalized podcast generator MVP in 4 days at AI EdTech startup; resulted in **800+** podcast generations in the first week (averaging 3 per user), validating early product-market fit.

Jigsaw Puzzle Solver (GitHub) | *Python, OpenCV, NumPy, SciPy, Matplotlib* — **November 2024**

- Solves jigsaw puzzles (NP-hard) via Canny edge detection, HSV-based color contour matching, and custom piece-alignment heuristics; implemented backtracking; solves ambiguous same-shape puzzles in <**30 seconds**.

AI Friend (2x YC Interviewed, Demo) | *Python, Supabase, Celery, Redis, Qdrant, Mem0* — **August 2024**

- SMS conversational agent with vector-based episodic memory, proactive message scheduling, and adaptive personality modeling; scaled to **200+ users** and **8,000+ messages**.

Better Read (Chrome Extension) | *JavaScript, HTML/CSS, Chrome APIs* — **September 2023**

- DOM manipulation & CSS injection to customize web readability; **1,000+ downloads** with 5/5 Chrome Store rating.