Manraaj Singh

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EDUCATION

Dartmouth College   2027
Bachelor of Arts in Computer Science and Mathematics (GPA: 3.90)   *Hanover, NH*
- Coursework: Algorithms, Data Structures, System Design, Calculus 3, Linear Algebra, Probability, Linear Models
- Activities: Dartmouth Quant Students Club, Dartmouth Sikh Students Association, Club Golf, Club Table Tennis
- Awards: xAI Hackathon (1st Place), 2x AIME Qualifier (MAA), USACO Gold Division, High School Salutatorian

TECHNICAL SKILLS

Languages: Python, Java, SQL, C, R, JavaScript, TypeScript, HTML/CSS, Dart
Frameworks & Libraries: PyTorch, TensorFlow, SciPy, Pandas, React, Flutter, Node.js, Django
Databases & Cloud: MySQL/PostgreSQL, Snowflake, AWS Suite, Azure Data Factory, MongoDB
Developer Tools: Git, GitHub, Docker, Linux, Jenkins

EXPERIENCE

Kenvue   June 2025 – Sep 2025
Software Engineer Intern   *Summit, NJ*
- Modeled baseline sales in **Python** and **Snowflake** using time series analysis (**LightGBM**) to measure promotion ROI, providing key insights for resource allocation to business leaders.
- Automated a manual data ingestion workflow by migrating an ETL pipeline to **Azure Data Factory**, enabling scalable, scheduled data loading from **AWS S3** into **Snowflake**.
- Reduced weekly back-and-forth by 20+ hours by implementing a **ServiceNow** questionnaire with a **REST API** to streamline database access requests and automate assignments.

Scale AI   March 2025 – Present
Technical Advisor Intern (GenAI)   *Remote*
- Authored Olympiad-level solutions in **Java** and **Python** to generate high-quality training data for improving LLM chain-of-thought reasoning.
- Enhanced LLM performance on software engineering tasks by evaluating outputs and applying Reinforcement Learning with Human Feedback **(RLHF)** to refine model behavior.

Geisel School of Medicine, Hassanpour Lab   Dec 2024 – March 2025
Data Engineer Intern   *Hanover, NH*
- Developed a **Python**-based OCR pipeline to automate text extraction from 14,000+ pathology report PDFs from hospital and public databases.
- Augmented training dataset volume by over 300% through the generation of synthetic Q&A pairs from clinical documents, enabling more comprehensive model training.

Khoj Gurbani Media   June 2023 – Aug 2024
Software Engineer Intern   *Boston, MA*
- Redesigned a mobile app's UX/UI using **Flutter** and **Dart**, boosting the user base from 2,000 to over 75,000 through a more intuitive, modern interface.
- Cut media fetch latency by over 50% for 10,000+ daily requests by integrating **Amazon CloudFront** (CDN) with **AWS S3** and optimizing backend caching.
- Implemented secure Google/Facebook authentication using **OAuth** protocols, contributing to a 60% increase in new user sign-ups.

SELECTED PROJECTS

Quantitative NBA Prediction System | Python, PostgreSQL, REST API | GitHub   2025
- Engineered an automated ETL pipeline using Python, Selenium, and PostgreSQL to ingest and normalize NBA game logs, injury reports, and betting odds.
- Achieved a 65% win rate and 25% return on capital over an 8-month simulation by developing an XGBoost model optimized on advanced features like rolling EMAs, usage rate interactions, and defensive exploits.

Tiny Search Engine | C | GitHub   2025
- Built a web crawler to fetch and save pages up to a specified depth and an indexer to build an inverted index mapping words to document IDs and counts.
- Designed a querier with parsing logic to process boolean queries ('and'/'or'), delivering relevant search results from the indexed data.