

Vihaan Shetty

(408) 832-9540 | vihaanshetty@gmail.com | [linkedin.com/in/vihaanshetty](https://www.linkedin.com/in/vihaanshetty) | vihaan-shetty.com

EDUCATION

Purdue University

West Lafayette, IN

B.S. in Computer Science, B.S. in Data Science | GPA: 3.8/4.0

Exp. graduation Dec. 2026

- Concentration: Machine Intelligence
- Relevant Coursework – Data Structures & Algorithms, Analysis of Algorithms, Data Mining & Machine Learning, Systems Programming, Information Systems, Computer Architecture, Applied Regression Analysis, Linear Algebra

SKILLS

Languages: Python, Java, C/C++, JavaScript, SQL, R, HTML, CSS, TypeScript, Swift

Frameworks / Libraries: TensorFlow, PyTorch, Keras, scikit-learn, XGBoost, PostgreSQL, MySQL, MongoDB, React, Next.js, Node.js, Express, Redux, Flask, PrismaORM, TailwindCSS, Spring Boot, Maven, Spark, Airflow, Hadoop, Pandas, NumPy, Matplotlib, GGPlot2, React-Native, Expo, REST

Tools: Git, Linux, UNIX, Bash, Docker, Tableau, Vercel, Agile, Scrum, Jira, Google Cloud Platform

EXPERIENCE

Bank of New York (BNY)

Jun. 2025 – Present

Software Engineering Intern | Data Masters (Client & Contract) Team

New York City, NY

- Developing an AI agent leveraging **Retrieval-Augmented Generation (RAG)** for automation of large-scale time series anomaly detection and handling of missing data
- Creating scalable data validation and hydration testing pipelines using **Apache Spark**, **Hadoop DFS**, and **Airflow** to support processing of **over 50 billion** client and account records from **100+** data sources
- Optimizing **Spring Boot**-based **Universal Client Master** application by **eliminating over 75%** of boilerplate code, significantly streamlining development workflows

The Data Mine – Purdue University

Jan. 2025 – May 2025

Corporate Partners TA | Management Performance Hub

West Lafayette, IN

- Managed Data Mine students for research project leveraging **Indiana Criminal Justice Institute (ICJI)** data
- Enforced **Agile methodologies** as **Scrum Master**, ensuring timely project delivery and fostering communication between students and corporate mentors
- Mentored students in professional development and technical skills including **data exploration**, **data visualization**, and **applied machine learning** to support team competency and project output quality

The Data Mine – Purdue University

Aug. 2023 – May 2024

Undergraduate Researcher | Pro Football Focus

West Lafayette, IN

- Developed **XGBoost** and **Random Forest** regression models, using advanced play-by-play charting data to **grade over 200** NFL and NCAAF quarterbacks on the value and difficulty of their throws
- Achieved **80%+ grading accuracy** via **hyperparameter tuning** and domain-specific **feature engineering**
- Created **Tableau dashboard** providing PFF clients with an **interactive visual experience** showcasing quarterback evaluation grades and predicted NCAA to NFL performance transitions

PROJECTS

Workout Tracker | Next.js, PostgreSQL

April 2025

- Developed **full-stack** web application attracting **over 100 users** used for workout tracking and intelligent monitoring of muscle progressive overload
- Created **RESTful API** supporting OAuth2.0 user authentication, **multi-user concurrency**, and **optimized database read/write** transactions for security and scalability

UNIX Shell Interpreter | C, C++, bash, Lex/Yacc

March 2025

- Built **custom UNIX Shell** including scanner/parser that supports piping, file redirection, environment variable expansion, background processes, with integrated SIGINT handling and zombie process cleanup for robustness
- Implemented advanced features such as **subshells**, **wildcarding**, **path completion**, and a **custom line editor**

Hackathon Leaderboard (ML@Purdue) | Next.js, Flask, PostgreSQL

October 2024

- Created full-stack application for ML-powered Hackathon grading system used by **200+ participants**
- Implemented **RBAC** and OAuth2.0 authentication for admin privileges, designed fully-customizable UI
- Developed **Flask** back-end API for database access operations and interaction with the project's ML features