

# SHARANYA DABAS

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## EDUCATION

### Cornell University

Bachelor of Science in Computer Science

GPA: 3.8

Ithaca, NY

August 2022 – December 2025

**Relevant Coursework:** Machine Learning, Algorithms, Object-Oriented Programming & Data Structures, Backend Development, Computer Graphics, Operating Systems, Database Systems, Embedded Systems, Computer Networks

## EXPERIENCE

### Product Development Intern

State Street Markets | Currency Management

Boston, MA

June 2025 – August 2025

- Transformed raw financial data into time-series formats using Pandas and ingested it into a RAG knowledge base
- Coordinated weekly calls with the offshore State Street RAG backend team to align data integration methods
- Presented ingested data to the Strategy team to evaluate how different LLMs perform and accelerate account analysis
- Developed React/ Flask dashboard to help product managers visualize fund events like liquidations, mergers, etc
- Created and maintained Oracle SQL tables in a testing environment to model fund events and enable validation

### Software Developer

Cornell Cup Robotics

Ithaca, NY

January 2024 – May 2025

- Built overhead vision system using April Tags to track location and orientation relative to virtual and physical objects
- Collaborated with 30+ students across 4 sub-teams, participating in weekly scrums and regular milestone demos
- Optimized OpenCV capture pipeline, doubling video frame rate from 30 to 60 fps to support smoother real-time control
- Developed React dashboard with Flask backend for one-click pairing, live location graphing, and movement scripting

## PROJECTS

### Exercise Search Engine | Python, JavaScript, HTML, CSS

- Lead 5-person team in designing full-stack website for querying exercises and returning similar alternatives
- Created Flask API with SVD text mining and cosine similarity to measure similarity between exercise descriptions
- Wrote a Selenium-based web scraper to compile a JSON dataset from multiple different sources
- Containerized the application via Docker and deployed to AWS ECS using Fargate launch type

### Workout Data Visualization App | ASP.NET, React, C#, Javascript, PostgreSQL

- Built fitness tracker web-app allowing users to define exercises, log lifts, and create workout programs
- Built a React UI with MUI components connected to an ASP.NET Core Web API using Entity Framework Core
- Implemented Identity Framework authentication with SendGrid email integration for secure user management
- Utilized interactive Recharts graphs and a live SVG muscle map that highlights each session's targeted muscle groups
- Designed and optimized a PostgreSQL database on AWS RDS to ensure scalable and reliable data storage

### Accelerometer-Driven Game Controller | C, Python

- Developed Doodle Jump on the FRDM-KL46Z, using accelerometer tilt and button interrupts for player input
- Wrote C firmware with PIT-driven LCD score counter, all synced to gameplay via prefixed serial messages
- Designed physics engine that converts raw tilt into vector-based velocity for snappy, believable movement
- Streamed input over UART from the backend to a Pygame front-end for smooth, real-time control

## TECHNICAL SKILLS

**Languages:** Python, C#, Java, C, OCaml, TypeScript, JavaScript, HTML, CSS, SQL

**Developer Tools:** AWS, PostgreSQL, SQLite, Git, Postman

**Frameworks:** ASP.NET, React, Entity Framework, Identity Framework, Flask, Docker

**Libraries:** Pandas, NumPy, OpenCV, Selenium, Matplotlib, Scikit-learn