Yash Panchal

U.S Citizen | 404-933-1936 | yashcpanchal.com | yashcpanchal41@gmail.com | github.com/yashcpanchal

EDUCATION

Georgia Institute of Technology — Atlanta, GA
B.S. in Computer Science — *Expected December 2027*
- **GPA: 3.92/4.00** | Concentration in Intelligence and Systems & Architecture
- Relevant Coursework: DSA, OOP, Intro to AI, Design & Analysis of Algorithms, Objects & Design, Computer Organization and Programming, Computer Systems and Networks

EXPERIENCE

Financial Research Intern — August 2023 – May 2024
GERLoftin — *Johns Creek, GA*
- Architected and maintained an automated data pipeline using Python, Pandas, and the YCharts API to ingest and process financial data, directly supporting analytics for a >\$250M investment portfolio.
- Researched and presented predictive analytics on various technical indicators using Scikit-learn, Seaborn, and Matplotlib which doubled the efficiency of analysis for the research team.
- Collaborated with a team of seven interns to design and present data-driven performance forecasts for NASDAQ tech companies, applying quantitative modeling and statistical analysis in Python to guide investment decisions.

PROJECTS

Jobly - AI-Powered Job Search Agent | *LangChain, FastAPI, Docker, MongoDB, Next.js* — Present
- Developed a full-stack, AI-powered job application agent using a **Dockerized FastAPI** backend and a **Next.js** with **TypeScript** frontend, resulting in an end-to-end platform that parses through 1000+ urls.
- Optimized data aggregation by engineering a multi-threaded, AI-powered agent with **LangChain** and **asyncio** to process up to 100 URLs simultaneously, returning results to the user within 3 minutes.
- Developed a job ranking and filtering system using **scikit-learn**, **spaCy**, and **MongoDB Atlas Search**, which ensured the top-ranked job posting consistently aligned with a user's experience and search prompt.

Re.Mind - Dementia Care Assistant App | *Kotlin, TensorFlow, Firebase, Node.js* — December 2024
- Developed an Android app in a team of 4 engineers using **Kotlin** and Jetpack Compose, integrating the Gemini LLM to successfully guide dementia patients towards recalling memories with a 90% success rate.
- Implemented on-device facial recognition with **TensorFlow Lite** and ML Kit Face Detection and built a real-time caregiver dashboard using **Firebase** (Auth, Firestore, Google Cloud Functions) reducing latency by over 50%.
- Engineered a RESTful API using Firebase Functions (Node.js) and optimized data delivery by implementing a caching strategy, reducing client-side latency by over 50%.

Spotify Wrapped Experience App | *Python, Django, JavaScript, SQLite, CSS, HTML* — November 2024
- Engineered a full-stack web application using Django, implementing the Spotify API's OAuth 2.0 flow to securely manage user data and refresh tokens for persistent data fetching.
- Developed a dynamic frontend with **HTML/CSS** and **JavaScript**, incorporating Sortable.js to build an interactive drag-and-drop game and the Spotify Web Playback SDK for integrated audio.
- Architected the RESTful backend and designed the **SQLite** database schema to efficiently store user profiles and personalized music reports, while leading a team of 4 as the lead engineer.

Market Sentiment & Investment Strategy Analysis | *Python, Pandas, Numpy, PyTorch* — February 2024
- Engineered a scalable data pipeline in **Python** using Alpha Vantage API, Pandas, and Numpy to process real-time financial data, generating stock scores based on fundamental and technical indicators.
- Integrated a RoBERTa model finetuned on Tweets for Twitter sentiment analysis, quantifying market sentiment and combining it with financial metrics for predictive modeling, resulting in positive returns in 98% of backtests.
- Designed and implemented a neural network in **PyTorch**, optimizing investment decisions by training on historical stock performance; top 50 ranking out of 5000+ teams in the UPenn Wharton Investing Competition.

TECHNICAL SKILLS

Languages: Python, Java, Javascript, Typescript, HTML, CSS, Kotlin, C
Libraries/Frameworks: Node.js, Next.js, React, FastAPI, Django, Pandas, NumPy, PyTorch, TensorFlow
Developer Tools: Github, Docker, Postman, GDB/PDB, Firebase, MongoDB