# Yash Panchal

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## 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

**Software Engineering Intern** — August 2025 – December 2025
*Narb* — *Remote*
- Built a multi-agent system built on LangGraph & FastAPI where agents autonomously plan, code, and test applications, featuring PostgreSQL for state logging, Tavily for search-grounding, and a self-correction loop.
- Enabled autonomous deployment by integrating the Google Cloud SDK and Docker into the agent's toolset, empowering it to containerize and deploy the applications it generates to Google Cloud Run.
- Implemented a ChromaDB-powered RAG pipeline to create a long-term memory for the agent team.
- Engineered a HITL system with WebSockets, allowing the agent to re-plan its workflow based on user feedback.

**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 increased efficiency of analysis for the equity research team.

## 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, completing aggregation 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 & Google ML Kit to help patients identify others and built a real-time caregiver dashboard with Firebase functions and Node.js to provide patient information.

**Spotify Wrapped Experience App** | *Python, Django, JavaScript, SQLite, CSS, HTML* — November 2024
- Architected a full-stack Spotify analytics app as a lead engineer, designing the Django RESTful API, SQLite schema, and implementing the OAuth 2.0 flow for secure user data fetching.
- Developed a dynamic and interactive frontend using JavaScript, incorporating Sortable.js to build a drag-and-drop game and the Spotify Web Playback SDK for integrated in-app audio.

**Market Sentiment & Investment Strategy Analysis** | *Python, Pandas, Numpy, PyTorch* — February 2024
- 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