Ayan Goel

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EDUCATION

Georgia Institute of Technology — **Atlanta, GA**
Bachelors of Science in Computer Science - GPA: 4.00 — *Expected Graduation: May 2027*
- **Concentration:** Artifical Intelligence and Information Internetworks
- **Minor:** Computing + Business through the Denning Technology and Management Program
- **Coursework:** Data Structures and Algorithms, Objects and Design, Discrete Math For CS, Linear Algebra

EXPERIENCE

FanDuel — **Atlanta, GA**
Software Engineering Intern — *May 2025 – August 2025*
- Incoming Summer 2025: Improving functionality of FanDuel's Sportsbook service through full-stack development

Microsoft — **Atlanta, GA**
Product Management Intern — *February 2025 – Present*
- Architected multi-agent Copilot system reducing non-critical incident resolution time by 75%, saving $360 per incident
- Coded asynchronous agent workflow pipeline using Autogen and Semantic Kernel for continuous communication transfer
- Optimized agent interaction by testing of 35+ profiles (goal oriented, rule based, ML-based, etc.) for intelligent resolution
- Wrote 25+ product specs and agent interaction protocols enabling integration between agents and external support APIs

Medford Research Group — **Atlanta, GA**
Research Intern — *December 2024 – Present*
- Automated SPARC-based Density Functional Theory workflows w/ Python and Bash scripts, reducing setup effort by ∼20%
- Simulated molecular structures using HPC-based DFT with Atomic Simulation Envs to process 1,000+ atomic interactions
- Honed PyTorch Networks with Bayesian optimization for 92% energy prediction accuracy, cutting compute time by ∼15%
- Configured 45+ C files for various physical/chemical calculations such as adsorption, spin polarization, and charge density

Trading at Georgia Tech — **Atlanta, GA**
Software Engineer — *October 2024 – February 2025*
- Engineered real-time trading platform user interface to facilitate national mock trading competitions for 400+ participants
- Utilized Node.js for WebSocket communication to enable real-time bid/ask updates, order book sync, and trade execution
- Created 10+ REST API endpoints designed with Express.js for trade execution, portfolio tracking, and user authentication
- Crafted 8 React visualizations, including stock movements and candlestick charts, to visualize changing market dynamics

LifeCycle Building Center — **Atlanta, GA**
Data Science Intern — *June 2023 – August 2023*
- Constructed data-driven inventory optimization system boosting annual profits by $175K & reducing donation waste by 31%
- Developed automated ETL pipeline for 120+ heterogeneous CSV datasets, decreasing team manual processing time by 70%
- Executed SQL-based transaction analysis (BigQuery) across 2.3M+ records, uncovering 5 key market segments for revenue
- Created dashboard using Matplotlib and PowerPoint automation to visualize trends and performance KPIs for stakeholders

PROJECTS

Merge Fitness | *React Native, Expo, Firebase, PostgreSQL* — *April 2025 – Present*
- Programmed companion mobile app for 300+ clients to track workouts, nutrition, etc. and streamline session scheduling
- Built a cross-platform frontend with React Native and integrated Firebase and PostgreSQL for auth and data management

Monty.ai | *React.js, FastAPI, Polygon API, yFinance, Gemini API* — *February 2025 – Present*
- Automated the development of no-code trading strategies by backtesting on historical data and Monte Carlo simulations
- Integrated FastAPI with stock/indicator data & Gemini LLM to evaluate strategy metrics & return strategy improvements

SpeakEasy | *Next.js, OpenCV, TensorFlow, NVIDIA NIM, Flask, MongoDB* — *October 2024 – February 2025*
- Built app that helps users improve their interview skills through custom questions/feedback from the NVIDIA NIM API
- Integrated OpenCV/Tensorflow pipeline with Flask to process video & audio, stored data in MongoDB for progress tracking

MediSense AI | *NumPy, Pandas, Scikit-Learn, Streamlit, Google BERT* — *September 2024 – December 2024*
- Tuned Google BERT LLM predicting various prognoses with 91% accuracy across 150+ trials with 50,000+ medical reports
- Trained Logistic Regression & Random Forest models assessing disease risk factors with 83% accuracy on 560,000+ rows

SKILLS/INTERESTS

Languages: Java, Python, C/C++, SQL, JavaScript, TypeScript, HTML/CSS, Rust, MATLAB, Assembly
Frameworks: Node.js, React.js, React Native, Angular, Next.js, D3.js, Express.js, Flask, FastAPI, Django, Bootstrap
Software: Scikit-learn, PyTorch, TensorFlow, MySQL, PostgreSQL, MongoDB, Firebase, AWS, Docker, Kubernetes
Affiliations: Trading @ GT, Product @ GT, Undergraduate Consulting Club, Alpha Kappa Psi Business Fraternity
Interests: Soccer, Weightlifting, Asian Cuisine, Cooking, International Travel, R&B Music, Gaming, Poker