# Ayan Goel

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#### **EDUCATION**

### Georgia Institute of Technology

Bachelors of Science in Computer Science

- 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
- Scholarships: Zell Miller Scholarship (full tuition), National Merit Scholarship

### Experience

#### FanDuel

Software Engineering Intern

• Incoming Summer 2025: Improving functionality of FanDuel's Sportsbook service through full-stack development

#### Microsoft

Product Management Intern

- Building multi-agent Copilot system reducing non-critical incident resolution time by 75%, saving \$360 per incident
- Designing asynchronous agent workflow pipeline using Autogen and Semantic Kernel for continuous data transfer
- Optimizing agent interaction by testing of 35+ profiles (goal/rule oriented, ML-based, etc.) for efficient resolution

### Medford Research Group

Research Intern

- Automate SPARC-based Density Functional Theory workflows with Python scripts, reducing setup effort by  $\sim 20\%$
- Simulate molecular structures using HPC-based DFT with Atomic Simulation Envs to process 1.000+ interactions
- Honed PyTorch NNs with Bayesian optimization for 92% energy prediction accuracy, cutting compute time by 14%

### LifeCycle Building Center

Data Science Intern

- Engineered data-driven inventory optimization system boosting annual profits by \$175K & reducing waste by 31%
- Developed automated ETL pipeline for 120+ heterogeneous datasets, decreasing manual processing time by 70%
- Executed SQL-based transaction analysis across 2.3M+ records, uncovering 5 key market segments driving revenue

#### Projects

Merge Fitness | React Native, Expo, Firebase, PostgreSQL

- Programmed companion mobile app for 300+ clients to track workouts, nutrition, etc. and streamline scheduling
- Built a cross-platform frontend with Expo and integrated Firebase and PostgreSQL for auth and data management

#### **Monty.ai** | React. *js*, FastAPI, Polygon API, yFinance, Gemini API

- Automated the development of trading strategies by backtesting on historical data and Monte Carlo simulations
- Integrated FastAPI with stock/indicator data & Gemini LLM to evaluate strategy metrics & return improvements

**Trading Platform** | React.js, Node.js, Express.js, REST APIs, Socket.io October 2024 – February 2025

• Created trading platform for Trading @ GT, facilitating national mock trading competitions for 400+ participants • Utilized Node.js for WebSocket communication and REST API for 2500+ trading operations with matching engine

**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 NVIDIA NIM
- Integrated OpenCV/Tensorflow pipeline with Flask to process video, 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 prognoses with 91% accuracy across 150+ trials with 50,000+ medical reports
- Trained Logistic Regression & Random Forest models assessing 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 Awards: Valedictorian Award, National Merit Scholar, Eagle Scout Award, FIRST Tech Challenge Dean's List Finalist Interests: Soccer, Weightlifting, Asian Cuisine, Cooking, International Travel, R&B Music, Gaming, Caring for Animals

Atlanta, GA

#### Atlanta, GA December 2024 – Present

#### Atlanta, GA



April 2025 – Present

February 2025 – Present

Atlanta. GA February 2025 – Present

May 2025 – August 2025

Atlanta, GA

GPA: 4.00 | Expected Graduation: May 2027