# Jackson Belanger

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# **EDUCATION**

## Georgia Institute of Technology

Atlanta, GA

Bachelor of Science in Computer Science, Minor in Mathematics | GPA: 4.0

Expected May 2027

• Concentrations: Artificial Intelligence, Systems & Architecture

#### **WORK EXPERIENCE**

#### Software Engineer Intern

June 2024 - Present

Fidelity Investments

Boston, MA

- Engineered key features for Fidelity's career portal for applicants and recruiters using Angular, Spring Boot, and PostgreSQL.
- Reduced load times by 40% by optimizing GraphQL queries, implementing a caching system, and improving server logic.
- Collaborated with a cross-functional team in an Agile environment. Ensured seamless integration through CI/CD practices.

Software Developer

May 2023 – May 2024

Tree-Plenish (Environmental nonprofit)

Remote

- Developed a full-stack Flask web application, enabling rules-based app notifications and automated order tracking emails.
- Improved retention rate by 20% by analyzing the factors predictive of a school returning using Python, Pandas, and NumPy.
- Developed volunteer dashboard and login flow for over 3,000 volunteers on mobile app using Flutter.

# Software Development Intern

June 2023 - Aug 2023

Indigo Slate

Seattle, WA

• Developed a live project management report for 150 employees with React, ensuring confidentiality by allowing workers to view only their assigned projects. Enhanced security by implementing Microsoft SSO for identity verification.

## **PROJECTS**

Competitive Stock Trading Platform | React Native, JavaScript, TypeScript, Redux, Express.js, Node.js, MongoDB

Engineered a highly engaging head-to-head stock trading platform. Implemented RESTful APIs and WebSockets for
real-time data synchronization. Optimized system performance with efficient data management and transaction processing.

Database API Generation and Hosting Platform | React. is, Express. is, LangChain, OpenAI GPT-4, HTML/CSS, JavaScript

• Developed a LangChain and GPT-4 powered tool that automates API generation and hosting for MongoDB databases from natural language descriptions and database schemas, ensuring efficient and streamlined API deployment for users.

**S&P 500 Stock Trading Bot** | Python, Pandas, yfinance, Backtesting.py

- Developed an algorithmic trading bot using a 200-day moving average and Bollinger Bands to trade on the S&P 500.
- Achieved a 2610% return on a backtest of the last 18 years, attaining 7x the return of passively holding the SPY Index.

# **ACTIVITIES**

## Quant Sector: Machine Learning Team

Jan 2024 - Present

GTSF Investments Committee

• Build a regression model to determine a weighted vector of assets replicating the performance of the SPX index with Python.

# **Quant Trading Analyst**

Jan 2024 - Present

Trading Club @ Georgia Tech

Model sector ETFs' volatility surfaces based on the volatilities of the largest components with principal component analysis.

#### 3rd Place in Harvard Trading Competition

March 2024

Harvard Undergraduate Quantitative Traders

• Competed in ranked games testing skills in market making, betting, data analysis, and making decisions under uncertainty.

#### TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, HTML/CSS, SQL, GraphQL

Frameworks and Libraries: React, Angular, Node.js, Express.js, Spring Boot, Flask, React Native, Flutter, Pandas, NumPy Developer Tools: Git, GitHub, Jira, MongoDB, PostgreSQL, AWS, Google Cloud, Firebase, Postman, Jenkins, Webpack Concepts: Object-Oriented Programming, Data Structures and Algorithms, Cloud Computing, Debugging, SDLC, Agile