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## EDUCATION

Georgia State University: College of Arts & Sciences — Graduating in 2026
Bachelor of Science in Computer Science

Relevant Coursework: Computer Organization and Programming, Data Structures, Design and Analysis: Algorithms, Operating Systems, Programming Language Concepts, System Level Programming

## EXPERIENCE

Coding Tutor | Code Hero Academy - Alpharetta, GA — Current

- Guide students in learning programming fundamentals and developing problem-solving strategies through hands-on instruction
- Design and build interactive coding projects to showcase at community events, inspiring interest in technology and highlighting real-world applications of computer science.

## EXTRACURRICULARS

UGAHacks | University of Georgia - Athens, GA

- Built and fine-tuned a lightweight language model using custom web-scraped data to generate context-aware responses.
- Optimized the model for efficient, domain specific output, demonstrating the practical applications of NLP for business automation and user-facing tools.

CodeDay | LexisNexis Risk Solutions - Alpharetta, GA

- Collaborated with a team to design and develop multiple computer science projects under time constraints, earning three project awards for innovation and technical quality, including recognition for best overall performance.
- Volunteered at CodeDay to support event operations and assist participants, contributing to a positive and engaging experience.

FBLA (Future Business Leaders of America)

- Competed in the Coding and Programming event, earning 2nd place at the State Leadership Conference, and ranking top 10 at the National Leadership Conference.
- Built an app to centralize school events and track student participation and award points, featuring a quarterly leaderboard to recognize top performers.

## SKILLS

Programming Languages: JavaScript, TypeScript, Python, C++, SQL, HTML, CSS, Java
Frameworks and Libraries: Node.js, Express.js, Electron, MongoDB, NumPy, Pandas, TensorFlow, PyTorch, OpenCV
Tools and Technologies: Git, Docker, CCXT, WebSockets, Postman, Firebase, Heroku, Event-Driven Architecture
Concepts and Methodologies: Algorithmic Trading, Machine Learning, Data Visualization, Simulation and Modeling

**PROJECTS**

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Algorithmic Crypto Trading Bot
- Developed an algorithmic trading bot leveraging real-time crypto market data from multiple exchanges.
- Designed event-driven and statistical trading strategies based on market inefficiencies, volume patterns, and price action.
- Integrated dynamic risk management with volatility-adjusted position sizing, stop-loss mechanisms, and a backtesting framework to validate strategies.

Algorithmic Stocks and Options Trading Bot
- Developed a programmatic trading bot for stocks and options, implementing event-driven and statistical strategies across multiple instruments.
- Integrated portfolio-level risk management, position sizing, and hedging to optimize returns while controlling exposure.
- Built a backtesting and simulation framework to validate strategies across historical market data and varying conditions.

Short Term Stock Movement Analysis
- Built a real-time tool to fetch OHLCV data and analyze buying/selling pressure, order flow, momentum, market structure, and liquidity.
- Applied short-term predictive modeling across variable timeframes to generate actionable trading insights.
- Enabled data-driven analysis to support intraday trading and strategy evaluation.

Automated Options Hedging Tool
- Designed a system to optimize options hedging strategies using machine learning models.
- Modeled volatility, correlations, and risk metrics to dynamically adjust positions.
- Reduced portfolio exposure and enhanced risk-adjusted returns across multiple instruments.

Real-Time Market Arbitrage Bot
- Built a bot to detect price discrepancies across multiple exchanges and execute automated trades.
- Implemented latency-minimized strategies while accounting for transaction costs and exposure risk.
- Optimized execution logic to maximize arbitrage opportunities under real-time market conditions.

Options Pricing Simulator
- Developed a simulator to model options pricing and evaluate risk/reward scenarios using the Black-Scholes framework.
- Allowed users to test hedging strategies and explore theoretical option values.
- Provided an interactive platform for understanding derivative strategies.

Real-Time Racing Telemetry Analysis Platform
- Built a comprehensive telemetry tool for racing simulators to track driver performance, lap times, and car dynamics.
- Tracked driving efficiency and lap times, with session comparison, trend tracking, and real-time visual feedback for actionable insights.
- Bridged real-time telemetry data with user-driven decision-making to optimize performance and setups.

Telemetry Driven Tuning Assistant
- Built a real-time tool to analyze car component performance under varying track and driving conditions.
- Modeled tire grip, suspension movement, and chassis behavior to generate optimized setups.
- Allowed adaptive tuning for different drivers and driving styles.