Christian Alexis Salais (U.S Citizen)

https://github.com/Csalais3 https://chrissal.dev

Email : chrissal0604@gmail.com

Mobile : +1 (770)877-0177

EDUCATION

- **Georgia Institute of Technology** Atlanta, GA
  Bachelor's of Science in Computer Science, Minor in Mathematics, Minor in Japanese (GPA: 3.3/4.0) *December 2026*
- **Relevant Coursework**: Probability Theory, Statistical Theory, Complexity Theory, Linear Algebra, Combinatorics, Algorithms, Machine Learning, Deep Learning, Natural Language Processing
- **Achievements**: Zell Miller Scholarship, Dean's List, Jane Street Puzzles Leaderboard x2, 1800 on Chess.com
- **Involvement**: Trading at GT, AI at GT, GT Chess Club, GT Math Club, Lambda Theta Phi Latin Fraternity Inc.

SKILLS

- **Programming Languages**: Python, C++, Javascript, Java, LaTeX
- **Technologies**: PyTorch, TensorFlow, Numpy, Pandas HuggingFace, FastAPI, React, Node.js, Git, LaTeX, IntelliJ, Docker, Postman, SQL

TECHNICAL EXPERIENCE

- **Vertically Integrated Project: Responsible AI for Decision Making** Atlanta, GA
  Quantitative Research / Machine Learning *January 2025 — Present*
  - Led development of a news-adjusted financial analysis tool combining market data with NLP-based sentiment analysis to predict future valuations. Built scalable pipelines using Python, NumPy, and pandas, designed ML models for sentiment extraction including engagement-weighted, EWMA-smoothed scores, and integrated them with time series forecasts to improve predictive accuracy.
  - Coordinated team contributions, established coding standards, and created onboarding workflow to streamline collaboration. Oversaw integration of modular components into a cohesive, reproducible system, ensuring reliability and maintainable architecture while guiding feature prioritization and technical design.

- **ByteFight** Atlanta, GA
  Software Engineer - Full Stack / Infrastructure *April 2025 - Present*
  - Contributed to the development ByteFight, a BattleCode-style AI algorithms competition sponsored by Georgia Tech's College of Computing, Millennium, and AI@GT, and adapted the platform to run Georgia Tech's CS3600's end-of-semester AI tournament as a large-scale systems test.
  - Updated the core engine to C++ with Numba-optimized hotspots, cutting p95 adjudication latency from 180 ms to 60 ms; built secure bot-upload and match-scheduling infrastructure supporting 500 matches per day with p95 API latency reduced from 50 ms to 15 ms; implemented a durable local storage system and a full ranking/standings system; migrated deployments to EC2; and overhauled the front-end UI and renderer, reducing onboarding time by about 30 percent and improving p95 load by 80 ms.

PROJECTS

- **Schema Driven C++ Code Generator**:
  - Designed and implemented a code generation tool in C++ that converts schemas (YAML/JSON/XML) into high-performance encoder/decoder/message classes.
  - Extended output to include binary encoders/decoders, human-readable JSON/XML converters, and auto-generated documentation/tests, improving usability for debugging and benchmarking.
  - Optimized generated code for low-latency financial-protocol–style messaging using modern C++ (RAII, move semantics, templates).

- **Python Options Pricing Model**:
  - Implemented a Black–Scholes options pricing model in Python with NumPy/SciPy, supporting calculation of call/put prices, Greeks (Delta, Gamma, Theta, Vega, Rho), and implied volatility.
  - Developed an interactive GUI with Matplotlib/Plotly for dynamic heatmaps and sliders to adjust underlying price, volatility, interest rate, and time-to-maturity—enabling real-time visualization of option sensitivities.