

Emir R. Tali

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Senior with a passion for applied artificial intelligence and quantitative analysis.

Education

Boston University *B.A. in Economics & Math, B.S. in Data Science* *September 2023 – Present*

- **GPA:** 3.90/4.0
- **Coursework:** Econometrics, Optimization Research, Algorithms, Programming for Data Science, Data Structures, Linear Algebra, Probability, Introduction to Machine Learning.
- **Extracurriculars:** Boston University Moot Court Organization (*Vice President*).

William Mason High School *Summa Cum Laude, National Merit Finalist* *Sept. 2019 – May 2023*

Work Experience

Medpace *Cincinnati, OH*
Artificial Intelligence Intern *May 2026 – August 2026*

- Worked on internal AI projects for at a clinical research organization.
- Developed multiple prototypes and proofs of concept to automate tasks and increase productivity.

TEC Engineering *Mason, OH*
Artificial Intelligence Intern *May 2025 – August 2025*

- Designed and deployed a local Retrieval Augmented Generation (RAG) chatbot for a civil engineering firm to process more than 250GB of company files.
- Implemented hybrid vector/keyword search, cosine similarity-ranking, and agentic structured SQL queries for on-premise inference with an RTX PRO 6000 server.

Boston University Faculty of Computing and Data Sciences *Boston, MA*
Teaching Assistant for Programming for Data Science *September 2024 – Present*

- Hosted weekly discussion sections and office hours for a Rust programming class with 90+ students. Taught systems programming and Git, graded assignments and exams, and assisted with the teaching of the course.

Projects

"When A Crystal Ball Isn't Enough To Make You Rich" [github.com](#) 

- Investigated whether future news events carry any predictive signal for present day price-direction (insider trading) through stochastic regression and classification.
- Applied OCR, NLP embeddings, cosine similarity, and RoBERTa-based NLI feature engineering across 6000 articles, achieving a 55% classification accuracy and weak positive R^2 .

Interior Point Solver [github.com](#) 

- Built an interactive tool with Rust for the interior point optimization algorithm used in operations research.
- Compiled into a WebAssembly executable for fast client-side analysis and hosting on GitHub Pages.

Technical Skills & Interests

Programming Languages: Python, Rust, SQL, R, STATA.

AI Technologies: Ollama, ChromaDB, LangChain, RAG, Vector and Semantic Search, NLP, LLMs and Local Inference, Embeddings, Agentic Workflows.

Cloud & Tools: Azure, Snowflake, Git(Hub), Streamlit.

Miscellaneous: Microsoft Office, L^AT_EX.

Interests: Ancient and economic history, film photography, table tennis, 4x strategy games.