Ethan Savar

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Education

The Ohio State University May 2026
Bachelors of Science in Computer Science Engineering, Double Major in Mathematics *Columbus, OH*

- **Honors Integrated Business Engineering Program**
- **Relevant Coursework:** Machine Learning (Graduate), Data Structures and Algorithms, Operating Systems, Stochastic Calculus, Linear Algebra, Differential Equations, Real Analysis, Abstract Algebra, Statistics I + II

Experience

JPMorganChase June 2025 – Aug 2025
Software Engineer Intern *Columbus, OH*

- Developed a full stack dashboard for trading backtesting systems using **React**, **Spring Boot**, and **PostgreSQL**
- Created a fake news and market sentiment detection AI model using **PyTorch** for firmwide innovation hackathon

Immuta May 2024 – May 2025
Research Engineer Intern *Columbus, OH*

- Optimized sensitive data discovery services by leveraging finite automata theory in **Python**, leading to an improvement in data classification by **36%** and a decrease in error rate to less than **1%**
- Developed a semantic similarity clustering model in **PyTorch** and **matplotlib** enabling hierarchical data matching
- Built a service in **Typescript** to generate **SQL** for integration testing across Snowflake, Databricks, and Redshift
- Developed a copilot evaluation tool using **Python** to observe variability in LLM subject capturing and generations
- Created a generative AI synonym detection service using **AWS Bedrock** as part of Immuta's policy copilot

Scarlet Investment Group Oct 2023 – Apr 2025
Founder/VP of Quantitative Finance *Columbus, OH*

- Founded the first student club at Ohio State to provide students with hands-on experiences with quantitative finance
- Led team of developers to produce and back test algorithmic trading strategies and create risk evaluation tools

DataLab at The Ohio State University Aug 2023 – Dec 2024
Undergraduate Research Assistant *Columbus, OH*

- Researched applications of stochastic differential equations on diffusion models for video and image generation
- Developed uncertainty calibration technique applying transformations to LLM logit outputs for determining accuracy
- Created an engine leveraging **OpenCV**, **Python**, and **CLIP** to analyze videos and generate scene descriptions to enable searchable indexing of relevant video segments based on text queries

Projects

AutoTex | *React, Tailwind, Ollama, PyTorch, Python*

- Designed and developed an open source web application that uses **Ollama** to convert natural language into LaTex and improve note taking by adding further insights and better terminology
- Created a lightweight CNN using **PyTorch** to analyze handwritten notes and documents to convert to LaTex

IMC Trading Prosperity 3 Algorithm | *Python*

- Developed a trading algorithm for IMC Trading's month long competition placing **284th** out of **∼15k** teams globally and **77th** in the United States **(top 2%)**

Kernix | *C, Unix*

- Developed a **Unix** based kernel shell in **C** supporting core commands such as file creation, deletion and directory navigation, implementing processes, threads, mutexes, page tables, system calls and disk management
- Optimized performance by reducing command execution time through hash table lookups and caching algorithms

Technical Skills

Languages: Python, Java, C/C++, Javascript, Typescript, SQL, HTML/CSS
Frameworks: React, Spring Boot, Node.js, Flask, PyTorch, Maven
Tools: Git, AWS, Kubernetes, Docker, Mockaroo, Jupyter Notebooks, Ollama