Ethan Savar

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Education

The Ohio State University May 2026
Honors (B.S.) Computer Science Engineering, (B.S.) Mathematics *Columbus, OH*

- **Integrated Business and Engineering Honors Program** - GPA: 3.5/4.0
- **Relevant Coursework:** Machine Learning (Graduate), Data Structures & Algorithms, Operating Systems, Databases, Data Mining, Linear Algebra, Stochastic Calculus, Real Analysis, Abstract Algebra, Statistics I + II

Experience

J.P. Morgan Chase & Co. June 2025 – Aug 2025
Software Engineer Intern *Columbus, OH*

- Built app that monitors trading workflow health in **React** and **Spring Boot** reducing mean response time by **20%**
- Prototyped downtime pattern detection models using **Python** and **scikit-learn** to identify recurring failure signals
- Led hackathon team to build a fake news and sentiment AI model using **PyTorch**, achieving **91%** analysis accuracy

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

- Improved sensitive data discovery by **36%** and reduced error rate below **1%** using finite automata theory in **Python**
- Developed a semantic similarity clustering model in **PyTorch** and **matplotlib** enabling hierarchical data matching
- Built a **TypeScript** service for **SQL** generation, streamlining testing across Snowflake, Databricks, and Redshift
- Created a copilot evaluation tool using **LangChain** and **AWS Bedrock** to observe variability in subject capturing
- Optimized AI policy copilot efficiency by **12%** enabling cost savings between **$29k-$240k** annually

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

- Applied stochastic differential equations to improve diffusion models for video generation motion consistency
- Designed an uncertainty calibration method for LLMs that transforms logit outputs to estimate model confidence
- Built a video analysis pipeline using **Python**, and **CLIP** enabling natural language search of scenes

Projects

IMC Trading Prosperity 3 | *Python*

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

FaceFrame | *Python, MediaPipe, TensorFlow, OpenCV, Firebase*

- Built real-time AR tool to scan and classify face shape and overlay optimal glasses using **MediaPipe** and **OpenCV**
- Integrated secure user authentication and session management using **Firebase** for login system
- Collaborated with optometrists to pilot the tool in clinics, streamlining frame selection during patient consultations

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

- Developed an open source **Electron** application that uses **Ollama** to convert natural language into Latex
- Created a lightweight CNN using **PyTorch** to analyze handwritten notes and pdf documents for conversion

GroupViz | *Python, Tkinter, Matplotlib*

- Built an interactive visualizer to simulate dihedral group actions and apply Burnside's Lemma on coloring problems
- Enabled users to explore symmetries of up to D(12) and generate Cayley graphs using **Tkinter** and **Matplotlib**

Technical Skills

Languages: Python, Java, Typescript, HTML/CSS, SQL, C
Frameworks: React, PyTorch, Next.js, Tailwind, Node.js, OpenCV, LangChain
Developer Tools: Git, Docker, AWS, Unix, Postgres, Maven, Jira, Jupyter
Hobbies and Interests: Catan, Euchre, Poker, Reading, Chess, Cooking, Pickleball