Maxwell Tobin

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EDUCATION

Duke University | Durham, NC | GPA: 3.72 **May 2027**

- **Major: Electrical and Computer Engineering (B.S.E.)**
- **Minor: Financial Economics**
- **Relevant Coursework:** Practical Financial Markets, Investing in Climate Solutions, Macroeconomics, Microeconomics, Prediction Markets, Statistics, Data Structures & Algorithms

Franklin High School | Franklin, MA **May 2023**

- Class Valedictorian, Rank: 1/430 | SAT: 1510 (Math: 800, R&W: 710)

EXPERIENCE

FlexGen Power Systems | Systems Engineering Intern | Durham, NC **May 2026 – Present**

- Develop validation frameworks for battery solutions serving AI data centers, translating power usage research into actionable test plans
- Build simulated test environments for battery storage controls, enabling pre-deployment validation and reducing on-site integration risk
- Optimize network configuration tools to automate manual setup, cutting setup time by ~50% and eliminating errors across projects

Honda Aircraft Company | Systems Integration and Test Engineer Intern | Greensboro, NC **May 2025 – Aug 2025**

- Automated a test system for landing detection as sole project manager; self-taught CAD to design the full mechanical and electrical build
- Designed a steering control system by using a lever mechanism to double the output speed for accurate, real-time simulation
- Redesigned cockpit panels by adapting new-aircraft design to legacy dimensions, cutting costs 73% ($43k) via in-house 3D printing
- Built a cockpit lighting test fixture by designing clamps and signal paths that replaced manual checks with real-time pass/fail visibility

Buyers Edge Platform | Data Intern | Waltham, MA **Jun 2024 – Aug 2024, Jun 2022 – Aug 2022**

- Identified and fixed multi-system data discrepancies by cross-referencing Salesforce and internal databases to resolve 500+ client tickets
- Streamlined Jira workflows by using conditional logic, smart filtering, and process visualization, cutting ticket resolution time ~40%
- Developed dashboards used by 100+ employees to track ticket trends and bottlenecks, helping QA teams resolve recurring issues faster
- Standardized ticket intake by redesigning Jira and documenting workflows, which reduced follow-up messages and accelerated resolution

SAT Math Group Tutoring Business | Founder | Franklin, MA **Jan 2023 – Jul 2023**

- Restructured tutoring unit economics by shifting from 1:1 to 10-student group sessions at $30 each, scaling hourly revenue 10x to ~$300
- Generated $6K profit in 5 weeks by designing a free SAT cheat sheet that served as a customer acquisition tool and in-session reference

PROJECTS

AI Investment Research Platform **Apr 2026 – Present**

- Independently building an AI-powered investment research platform that automates company screening and analysis for energy transition deals, classifying deal type, retrieving filings, and producing structured investment memos

Custom Processor & Embedded AI System | Tic-Tac-Toe **Jan 2026 – Apr 2026**

- Engineered a Tic-Tac-Toe game with a custom processor, AI logic, hardware inputs, and live display output on a programmable chip
- Optimized AI decision-making logic with a specialized algorithm, ensuring consistent processing speed regardless of complexity
- Resolved live gameplay glitches by isolating AI logic from display output, preventing incomplete AI decisions from rendering on screen

ORGANIZATIONS

Duke Real Estate Club | Analyst **Apr 2024 – Present**

- Lead team research analyzing commercial real estate markets and present investment thesis, building fluency in CRE investment strategy

Pi Kappa Phi Fraternity | Executive Board **Apr 2024 – Present**

- Steer executive board on chapter operations by providing strategic input that shapes key decisions across a 100-member organization

Duke AERO | Payload Team **Aug 2024 – May 2025**

- Created circuit boards and wiring diagrams for a high-altitude payload, supporting a successful rocket launch to 30,000 ft
- Architected a computer vision system to guide autonomous recovery to the designated landing zone after a high-altitude descent

SKILLS & INTERESTS

- **AI & Programming**: Claude Code, Codex, Python, C++, MATLAB/Simulink, CATIA (CAD), Java, C, and SQL
- **Data & Analytics**: Excel, PowerPoint, Word, Salesforce, Tableau, Visio, Jira, Confluence, and Grafana
- **Interests**: Renewable energy technology, investing, game theory, machine learning, fitness, soccer, violin, traveling, and Spanish