

Quinton Miller

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EDUCATION

Purdue University | West Lafayette, IN | John Martinson Honors College

Expected Graduation: May 2027

Bachelor of Science – Electrical Engineering | GPA: 3.18

Minor: Business Economics | Concentrations: AI & Machine Learning, Semiconductors & Microelectronics

RELEVANT EXPERIENCE

AI Trainer – Handshake AI (2026-Present)

- Identified reasoning failures and edge cases in generative AI models, contributing to model evaluation and improvement pipelines
- Classified training data and evaluated model outputs across multiple performance criteria to support large-scale AI development

LEADERSHIP EXPERIENCE

Phi Kappa Sigma Fraternity, Alpha Xi Chapter – Recruitment Chairman (2024)

- Led a recruitment committee to plan and execute 9 events, coordinating all logistics, IFC compliance paperwork, and chapter-wide engagement
- Directed multi-channel outreach campaign targeting hundreds of prospective members through personalized messaging, social media advertising, and direct networking
- Achieved high bid acceptance rate by prioritizing fit-focused recruitment over volume, resulting in strong new member class retention

Phi Kappa Sigma Fraternity, Alpha Xi Chapter – Brotherhood Chairman (2025)

- Co-planned and executed a variety of brotherhood events, managing budgets and incorporating member feedback to drive engagement and chapter cohesion
- Helped foster chapter culture by re-engaging inactive members, mediating internal conflicts, and facilitating recurring mental health discussions in a respectful environment

PROJECTS

Embedded Audio Processing and Playback System (C)

- Implemented PWM-based audio playback on an RP2350 microcontroller, optimizing timing and memory usage to support real-time playback and recording under constrained hardware resources
- Interfaced an I2C digital potentiometer for volume control and integrated ADC-based audio recording/playback from user input
- Developed a user interface with SPI to drive a display, dynamically rendering images based on button inputs
- Coordinated SPI, I2C, ADC, and PWM subsystems within a unified embedded architecture

Maze Navigation Robot

- Designed and built an autonomous robot to navigate a maze using sensor feedback and control logic
- Implemented navigation and path tracking algorithms in Python

Chess Engine (C)

- Developed a chess engine in C with rule enforcement and move validation
- Implemented board representation, legal move generation, and position evaluation logic

SKILLS & CERTIFICATIONS

- Languages: C, C++, Python, SystemVerilog, MATLAB, Java, RISC-V Assembly
- Python Libraries: Scikit-Learn, TensorFlow, PyTorch, NumPy, SciPy, Matplotlib, OpenCV
- Embedded & Hardware: SPI, I2C, ADC, PWM, DAC, DMA, UART, Microcontroller Systems
- EDA/Simulation: KiCad, LTSpice, MATLAB Simulink
- Mathematics: Multivariable calculus, linear algebra, differential equations, probability & statistics, discrete mathematics
- Certifications: AI Fluency: Framework & Foundations, Claude 101 – Anthropic (2026)

RELEVANT COURSEWORK

Signals and Systems, Digital Signal Processing, Probabilistic Methods, Advanced C Programming, ASIC Design Laboratory, Data Structures, Microprocessor Systems and Interfacing, Material Properties and Structures, Static Analysis, Electromagnetic Physics, Python for Data Science, Electrical Engineering Fundamentals, Digital System Design