

TOM TIGER

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EDUCATION

University of Memphis, Memphis, TN
Bachelor of Science, Electrical Engineering

Expected Graduation: May 2026

- GPA: 3.6/4.0
- Relevant Coursework: Circuit Analysis, Signals & Systems, Digital Logic Design, Electromagnetics, Embedded Systems, Power Systems, Control Systems, Renewable Energy, Microelectronics

RELEVANT EXPERIENCE

Memphis Light, Gas and Water (MLGW), Memphis, TN
Electrical Engineering Intern

May – August 2024

- Supported senior engineers in troubleshooting and maintaining control panels for industrial motors
- Used AutoCAD Electrical to draft single-line and wiring diagrams for plant-wide electrical systems
- Conducted safety and power quality checks on site, helping reduce downtime by 15% over the summer
- Assisted in PLC ladder logic review and HMI configuration for automation upgrades

University of Memphis, Memphis, TN
Undergraduate Lab Assistant – Circuits & Systems Lab

August 2023 – Present

- Guided students on lab procedures for oscilloscope, function generator, and breadboard setups
- Verified lab reports and provided feedback on circuit simulation accuracy using LTSpice and Multisim
- Ensured compliance with ESD safety protocols and proper lab equipment calibration

PROJECTS EXPERIENCE

IoT-Based Energy Monitoring System

Spring 2025

- Designed and built a Wi-Fi-enabled smart meter using ESP32 and current sensors
- Programmed real-time data logging to a cloud dashboard using MQTT and Node-RED
- Project detected abnormal usage patterns, helping users lower energy consumption by 18%

Buck-Boost DC Converter Design

Fall 2024

- Designed and simulated a DC-DC converter using MATLAB and LTSpice
- Achieved 92% efficiency under variable load conditions; soldered and tested PCB prototype

Autonomous Line-Following Robot (Team of 4)

Summer 2024

- Developed control logic in C for IR sensor input and motor actuation
- Optimized speed vs. stability using a PID controller implemented on Arduino Uno

VOLUNTEER WORK EXPERIENCE

White Station High School, Memphis, TN
FIRST Robotics Mentor

Summer 2022

- Guided 10 high school students in wiring and control systems

TECHNICAL SKILLS

- Software/Tools: MATLAB, LTSpice, Multisim, Simulink, AutoCAD Electrical, LabVIEW, Eagle, KiCad
- Programming: C/C++, Python, Verilog, Arduino, Assembly (basic)
- Hardware: Oscilloscope, Function Generator, Multimeter, Soldering Iron, STM32, Raspberry Pi, PLCs
- Certifications: OSHA 10-Hour Safety, Fundamentals of Engineering (FE) – Scheduled Jan 2026

CERTIFICATIONS & AFFILIATIONS

- IEEE Power & Energy Society, Student Member
- Eta Kappa Nu (HKN), Electrical Engineering Honor Society, Member
- Completed "Electric Circuits and Electronics" – Coursera Certificate (2024)