Joshua Dick

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Education

University of Oklahoma Norman, OK
- Bachelor of Science in Computer Engineering, May 2025
- Master of Science in Computer Science, May 2026
- GPA: 3.97

Relevant Graduate Coursework:
Database Management Systems, Advanced Computer Architecture, Machine Learning Fundamentals, Algorithm Analysis

Experience

Student Trainee Engineer Oklahoma City, OK
Tinker Air Force Base Summer 2024
- Rotating through different squadrons of the 76th Software Engineering Group
- Working with software and hardware to support multiple aircrafts
- Learned applications of Ada, C#, and the 1553 serial data bus

Undergraduate Research Assistant Norman, OK
Advanced Radar Research Center January 2024-Present
- Developing RF circuits for communication research under Dr. Hjalti Sigmarsson
- Programming microcontrollers for embedded RF systems

Math Tutor Norman, OK
University of Oklahoma Math Center 2022-2023
- Tutoring OU Students in mathematics for Linear Algebra, Calculus, and Differential Equations

Projects

FaceGuard April 2023
- AI powered lock to autonomously unlock when an authorized user's face is detected
- Created in 24 hours using Arduino and Python, with the locking mechanism controlled by a servo motor
- Winner of "Best Hardware Hack" during Hacklahoma 2023

Pan & Tilt Summer 2024
- Real-time tracking of a desired object in a live camera feed by adjusting stepper motors
- Built using opencv and the YOLOv8 object detection model, wirelessly transmitting the camera feed over a local network via UDP packets to a desktop computer that runs the model

University Involvement

Sooner Racing Team (FSAE) Electrical Lead 2023-Present
- Worked on the telemetry systems both through Motec software and direct sensor signals
- Collected and interpreted live voltage signals from Dynamometer sensors for Torque and RPM through National Instruments DAQ devices in Python. Implemented the Short Time Fourier Transform to collect and analyze analog data (representing RPM)
- Designed and constructed the circuit for the electric solenoid shifting mechanism on the car.
- Started the EV FSAE team at OU and designed systems for the EV Accumulator and shutdown circuit
- Designed and implemented Electronic Throttle Control system according to FSAE rules

Additional

Languages: C++, Java, Python, C

Technical Skills: Analog & Digital Circuit Design, Object Oriented Programming, Computer Networks, Database Management, Software Development