Davin Miles

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EDUCATION

Auburn University Auburn, AL
B.S. Mechanical Engineering May 2026
GPA: 3.82 / 4.00

SKILLS

CAD and Coding - Inventor, AutoCAD, SolidWorks, Creo Direct Modeling, MATLAB, Python, ROS, CNC, C++

Skills & Certifications – Mills & Lathes, Soldering, Excel, Microsoft 365, Shimano TEC, CPR, AED, First Aid

WORK EXPERIENCE

Rausch & Pausch LP, Auburn, AL Summer 2024 & Summer 2025
R & D Lab Intern
- Machined prototype fixtures and components on manual and CNC mills using Creo and Fusion 360
- Implemented a 5S shadow-foam tooling system that reduced retrieval time and tool misplacements
- Supported lab testing by building custom wiring harnesses, performing solenoid pneumatic tests with oscilloscope measurements, and assembling low-volume & pre-production components

Auburn University Recreation Center, Auburn, AL January 2023 - Present
Bicycle Shop Lead and Technician
- Guided customers on service needs by translating technical issues into clear recommendations
- Designed and implemented a shop layout using AutoCAD that doubled service capacity, improved tool accessibility, and enhanced professionalism with new lighting, streamlined storage solutions, and 400% more counterspace
- Managed 15 technicians, fostering an environment focused on kind, honest, and direct communication

MOAB Bike Shop, Franklin, TN July 2020 - August 2022; Summer 2023
Bicycle Technician and Bicycle Sales
- Performed advanced diagnostics and repairs on a wide range of bikes in a fast-paced service environment
- Advised customers on service needs and closed sales by giving fit assessments and accessory suggestions
- Navigated operational hurdles such as conflict resolution, managing staffing, and supply chain issues

RELEVANT PROJECTS

BMW E39 Parts Business 2019 - 2020
- Disassembled a 1999 BMW 528i; cataloged and sold parts online, selling over 50 parts and generating over $2000

Subaru Crosstrek Blind Spot Monitoring and Rear-Cross Traffic Alert Retrofit December 2022
- Retrofitted OEM radar sensors and integrated with CANBUS system for full BSM & RCTA functionality

Subaru Crosstrek 360 Camera System May 2025
- Engineered a video switching circuit using a relay bank with an Arduino and C++ to process inputs and display outputs

Senior Design Project: Semi-Autonomous Recumbent Tricycle August 2025 - May 2026
- Enhanced control system, UI, and initialization process using CAD design, Python, and ROS

Modular Coin Display October 2023
- Developed a modular, stackable display system in SolidWorks with 360-degree viewing access and integrated lighting

Custom Bookshelf Speakers December 2024
- Designed speakers using textbook principles and tuned a 2000Hz Linkwitz-Riley crossover for flat frequency response

PUBLICATIONS & EXTRACURRICULARS

E-Portfolio – *dtmiles.com* – Personal portfolio of relevant projects, designs, and business ventures

Subaru XV Forum *User ID: dmiles2493* - 9 write-ups with 150,000+ views; 400+ technical posts/replies

Auburn University Navigators – *Student Leader & Treasurer* August 2022 - Present

Pi Tau Sigma & Tau Beta Pi – *Active Member* November 2025 – Present