Davin Miles

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Education

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

Experience

Rausch & Pausch LP, Auburn, AL • *R & D Lab Intern* • Summer 2024 & Summer 2025

- 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 • *Bike Shop Lead and Tech* • January 2023 - Present

- Guided customers on service needs by translating technical issues into clear recommendations
- Designed and implemented a shop layout 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 • *Bike Mechanic and Sales* • July 2020 - August 2022; Summer 2023

- 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

Featured Projects

BMW E39 Parts Business

- Disassembled a 1999 528i; cataloged and sold parts online, selling 50+ parts and generating >$2000

Subaru Crosstrek Blind Spot Monitoring and Rear-Cross Traffic Alert Retrofit

- Retrofitted OEM radar sensors; integrated with CANBUS system for full BSM & RCTA functionality

Subaru Crosstrek Wireless Charger

- Designed a wireless charger bracket using CAD for seamless OE integration in a preexisting cubby

Senior Design Project: Semi-Autonomous Recumbent Tricycle

- Enhanced control system, UI, and initialization process using CAD design, Python, and ROS

Publications, Skills, and 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

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

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

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

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