

WILLIAM M. ROHREN

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EDUCATION

Texas A&M University - GPA : 3.092

BSME: Bachelor of Science in Mechanical Engineering

Expected Dec 2026

College Station, TX

SKILLS

CAD & CAM

SolidWorks, Fusion 360, Inventor

Programming & Embedded Sys.

MATLAB, Python, C++, ATmega, ESP32

Machining & Fabrication

CNC milling (Haas), manual mill/lathe

FEA Software

Ansys, Femap

PCB Design

Altium, KiCAD, THT/SMD Soldering

3D Printing

FDM, MSLA, SLS, BJT / Repairs

WORK EXPERIENCE

Rapid Prototyping Studio (RPS)

Student Technician

Jan 2024 — Present

College Station, TX

- Coordinated the use of >\$75,000 of equipment to help process 1,000+ manufacturing requests per semester.
- Supervised shop operations, overseeing \$10,000+ of material consumption & ensuring safety throughout.
- Trained over 1,000 students on prototyping tooling and created training material using Wiki.js and Markdown.
- Repaired \$12,000 Torchmate plasma cutter and authored a detailed SOP for its usage.
- Kickstarted construction of a 5'x5'x5' large-format FDM 3D printer for creation of Aero-Shells for SAE formula teams.

Industrial Engineering Dept.

Undergraduate Research Assistant

May 2025 – Present

College Station, TX

- Coordinated and led the design of a custom autoclavable binder-jet 3D printer for use in the microbiology dept.
- Operated an \$80,000 ExOne Binder-jet 3D printer to facilitate compaction studies for Ph.D students with various materials
- Hosted several team meetings and workshops to teach peers about CAD/CAM/PCB-design/etc.

ORGANIZATIONS

Aggies Create

Member

Aug 2022 — May 2023

College Station, TX

- Designed a smart filament storage solution while collaborating with the CEO of Accelerate 3D to (Fall '22 - Spring '23)
- Researched and prototyped a regenerative braking system for integration in SRF-Gen4 hybrid powertrain (Fall '23)

SAE Aero

Member

May 2025 – Present

College Station, TX

- Designing the structural members of plane components used in competition, as well as using FEA to simulate deflections under load, and verify integrity.

PROJECTS

Arduino Alarm Clock

Jan 2023 — Jun 2024

- Designed and built a custom alarm clock using Arduino, teaching myself digital circuit theory and C++ programming.
- Simulated in TinkerCAD, prototyped on breadboards, and designed/assembled a custom PCB in Altium.

Li-Ion Battery Board

Feb 2024 — Dec 2024

- Designed a PCB integration Li-ion protection, charging, and boost conversion (5/12V, up to 3A).
- Researched design tradeoffs, sourced components, and assembled boards for testing.

Atmega32U4 Development Board

Aug 2024 — Jan 2025

- Created a compact embedded dev board with i²C, serial, GPIO, and 3.3V peripheral support.
- Implemented low-power modes for battery operation.