Noah Hickman

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Objective: Aspiring thermal-fluids systems engineer with experience at Daimler and Volvo, leadership in Solar Car/FSAE, and hands-on engine tuning. Passionate about vehicle testing, automation, and propulsion system development. Planning on pursuing an integrated master's in thermal/fluids systems to bolster my passion for future propulsion technologies.

EDUCATION

Bachelor of Science*, *Mechanical Engineering **Current Classification: Junior; Graduation Date: May 2027**
The University of Texas at Austin
- **GPA:** 3.84/4.00; **Relevant Coursework:** Dynamics, Solids, Fluid Mechanics, MATLAB, Robot Mechanism Design
- **Scholarships:** Jim Moritz Memorial Scholarship in Automotive Engineering

SKILLS

Programming/Software: Python, MATLAB, PostgreSQL, Java, Git, Linux, Docker, Microsoft Office, Confluence, Jira
Mechanical/Analysis: Computer-Aided Design/CAD (SolidWorks, Autodesk Fusion 360), Finite Element Analysis/FEA (ANSYS Mechanical), ATI Vision, Vector CANalyzer
Manufacturing: Additive Manufacturing/3D Printing, TIG Welding, Machining (Lathe and Manual Mill), GD&T, Soldering
Work Eligibility: U.S. Citizen, ITAR Compliant, No Work Restrictions

WORK EXPERIENCE

***Product Testing Mechatronics (PTM) Intern* - Daimler Trucks North America** **May 2025 - Present**
- Built Python tools to transcribe voice trigger logs, detect optical acoustic warnings (OAW), and automate tagging using a localized LLM
- Merged Python code with PTM department web app (SQL, Docker), streamlining data analysis for PTM test engineers
- Supported PVE testing on exterior lighting, electronic braking, as well as multi-day Over-the-Road durability tests

***Co-Op: Engineering, Powertrain Integration* - Volvo Group** **January 2025 - May 2025**
- Executed root cause analysis (RCA) on diesel powertrain faults, utilizing MATLAB and Simulink documents
- Integrated chassis and powertrain hardware assemblies, wiring harnesses, and sensor systems
- Extracted CAN data from vehicle ECMs with ATI Vision and CANalyzer to troubleshoot 56+ powertrain parameters
- Developed custom Python scripts for plotting and statistical analysis of powertrain data, reducing manual troubleshooting time by 200%

TECHNICAL ACTIVITIES AND PROJECTS

Longhorn Racing (Formula SAE, Formula Sun Grand Prix, American Solar Challenge)

Engine Subsystem Member, Combustion **May 2025 - Present**
- Exploring airflow, cooling, and heat transfer strategies for packaging the competition vehicle's intake/exhaust systems

Mechanical Systems Mentor, Solar **January 2025 - May 2025**
- Served as an advisor for design recommendations and member training, mentoring over 45 mechanical team members

Body System Lead, Solar **July 2024 - January 2025**
- Led the 15-member Frame/Ergonomics subsystems, organized meetings, and created a high-level design timeline/budget
- Generated MATLAB scripts for stiffness calculations, helping reduce ANSYS simulation time by 260%
- Launched team-wide research on structural composites, testing alternatives to conventional frame structures

Frame Subsystem Lead, Solar **January 2024 - July 2024**
- Utilized SolidWorks FEA and Ansys Mechanical to validate and complete the chassis design based on ASC regulations
- TIG-welded space frame assembly with .001"-tolerance mounting tabs, using custom welding fixtures

Frame Subteam Member, Solar **August 2023 - January 2024**
- Modeled tubular frame roll-cage structure and cross-bracing in SolidWorks; supported suspension part manufacturing

***Propulsion Subteam Member* - Longhorn Rocketry Association (Spaceport America)** **August 2023 - August 2024**
- Designed a converging-diverging nozzle and an impinging injector with SolidWorks for the Taurus II hybrid rocket engine
- Conducted trade studies to determine optimal parts and materials, including nozzle O-rings

***Flight-Weight Fluids System Member* - Texas Rocket Engineering Lab (Spaceport America)** **February 2024 - July 2024**
- Performed flow/orifice testing on pressurant lines and compiled valve/fitting specs from P&ID schematics

Personal Project Car **February 2023 - Present**
- Organized various performance upgrades across drivetrain and suspension systems to integrate a forced induction system

Hobbies: Working on my project car, hiking, record/vinyl collecting, concerts, and solo traveling