Maximus Anderson

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EDUCATION

Iowa State University Anticipated graduation May 2027

- Bachelor of Science in Mechanical Engineering 3.65 GPA
- Dean's list Fall 2023-Current

WORK EXPERIENCE

Emerson Fisher | Additive Manufacturing Co-op May 2025 – Present

- Standardized costing process of production parts and created documentation for onboarding new engineers.
- Created custom supports and redesigned parts for manufacturability.
- Resolved costing software issue, increasing preliminary cost accuracy by 10%.
- Began print for prototype with new laser parameters in a Nikon SLM 500 to improve production capabilities.
- Discovered critical flaw in the design of a production part.
- Initiated cost-reduction project utilizing topology optimization.

Iowa State University | Design & Manufacturing Engineer | *Student Worker* January 2025 – May 2025

- Designed and 3D printed high-precision probes, replacing $3,240 CNC-machined parts.
- Modeled and machined viton gaskets to create an airtight seal between components in wind tunnel assembly.
- Assembled wind tunnel frame using Aluminum T-slots and mild steel using various manufacturing processes.
- Applied DFM principles to model wind tunnel assembly for replication and CFD analysis.

ACTIVITIES AND PROJECTS

Formula SAE, Cyclone Racing | *Powertrain: Cooling Systems Engineer* August 2023 – Present

- Played major role in the redesign of an entirely new steel tube chassis over two weeks to recover the project schedule after a chassis failure.
- Designed cooling loop for the team's first electric race car.
- Adapted legacy radiator sizing simulation for EV powertrain.
- Conducted first full-load dyno test at 5 kW, recording voltage drop and temperature profiles over time.
- Designed custom dynamometer system, enabling tuning of internal combustion engines and electric motors.
- MIG and TIG welded steel mounting brackets to mount EMRAX 208 electric motor to custom dynamometer.
- Contributed to in-house composite carbon fiber layup manufacturing process.

Tesla LDU Swapped Corvette | *Research/Design Personal Project* July 2024 – January 2025

- Developed Python program that calculates accumulator total capacity, energy, resistance, cost, and weight.
- Used Molicel 21700 cells to model two battery pack segment iterations.
- Modeled aluminum cooling plates based on Trumony Snake tubes for thermal management under high loads.

Rebuilt Meepo V4 Electric Skateboard | *Personal Project* March 2024 – September 2024

- Designed a 10s2p battery pack with Samsung 40T INR-21700 cells to replace original damaged 10s1p unit.

SKILLS & INTERESTS

- **Skills:** SolidWorks; NX; 3DXpert; Teamcenter; MATLAB; Python; Blender; Welding
- **Interests:** Vehicle Design; Vehicle Manufacturing; Accumulators; Electric Motors; Batteries
- **Languages:** English (fluent); Brazilian-Portuguese (conversational)