

# Anthony Aiyedun

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## EXPERIENCE

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### EQUIPMENT ENGINEER

MAY 2025 – PRESENT

NXP SEMICONDUCTORS, AUSTIN TEXAS

- Drove continuous improvement and data-driven reliability initiatives by coordinating with vendors and engineering teams to implement hardware/software solutions, enhance documentation, and optimize process performance across 8+ toolsets, resulting in a 15% reduction in repeat failures and 3% increase in wafer throughput.
- Performed preventive maintenance, wet cleans, and recovery operations on Applied Materials Centura 5200 Etch systems (Super-E, DPS, Metal, IPS) to sustain fab tool uptime and wafer yield.
- Collaborated cross-functionally with facilities, fellow engineers, electrical, and pump support teams to execute a full equipment decommission, performing hands-on electrical shutdowns, mechanical disassembly of vacuum and cooling systems, and multi-gas line purging and isolation of process gases, eliminating ~\$105K in annual maintenance costs.
- Diagnosed and resolved equipment performance issues such as pressure control, RF tuning, and electrostatic chuck systems, collaborating with cross-functional teams to restore tool health, improve reliability, and minimize downtime.

### EQUIPMENT ENGINEERING INTERN

MAY 2024 – AUG 2024

NXP SEMICONDUCTORS, AUSTIN TEXAS

- Designed and implemented a 3D-printed camera mount using AutoCAD and ANSYS mechanical FEA, automating a previously manual scanning process, which reduced tool load time by 73% thus increasing overall manufacturing output.
- Managed communication between NXP and third-party vendors to source project components efficiently, resulting in a 19% reduction in project delays.

### HARDWARE ENGINEERING INTERN

MAY 2023 – AUG 2023

DELL TECHNOLOGIES, AUSTIN TEXAS

- Designed a tool-less hard drive carrier using Creo and Windchill, reducing drive insertion time from 30 to 5 seconds and saving \$52,566 annually.
- Utilized Creo to validate designs according to customer requests, hardware requirements, and manufacturing constraints, leading to a pending patent for the final design.

## SKILLS

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**Reliability Engineering:** Failure Mode and Effect Analysis (FMEA), Continuous Improvement, Root Cause Analysis (3x5 Why), Statistical Process Control (SPC), Fault Detection and Classification (FDC), Six Sigma

**Design and Analysis:** SolidWorks, AutoCAD, Creo, ANSYS Mechanical, (Finite Element Analysis) FEA, (Design for Manufacturing) DFM, (Design for Assembly) DFA, (Geometric Dimensioning and Tolerancing) GD&T

**Manufacturing:** 3D Printing, Laser Cutting, CNC Mill, Prototyping, Handheld power tool, Circuit creation, Mechanical assembly, Tool Maintenance, Automation

**Electrical and Software:** C, MATLAB, ROS, LabVIEW, Arduino IDE, Raspberry Pi, Python

## PROJECTS

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### BRAKE DYNAMOMETER DEVELOPMENT – Senior Design, FSAE, Manufacturing, Data Acquisition, Python

AUG 2024 – MAY 2025

- Developed brake dynamometer with 5-member senior design team for UTA Racing FSAE, designing brake actuator system, calibrating sensors, and co-developing Python GUI for real-time data acquisition to verify brake pad performance characteristics.

## PATENTS

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Aiyedun, Anthony, Megan Wingfield, Bernard Strmiska, Julian Chen, Brennan Seal, Brooke Peterman, and Fabienne Umutohiwase. 2025. Screw with tool-less installation features. U.S. Patent Publication US 20250237257 A1, filed January 22, 2024. Pending

## EDUCATION

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### HONORS BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

MAY 2025

UNIVERSITY OF TEXAS AT ARLINGTON, ARLINGTON TEXAS. GPA: 3.67