

MATTHEW DUBEA

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SUMMARY

- Mechanical Engineer Graduate from Univ of Louisiana (**May 2025**) Aiming to specialize in manufacturing processes and robotics **materials science & manufacturing**,
- Study Abroad: UCL & Cambridge (London, UK) - Energy Systems & Sustainability, Heat Transfer, Fluid Mechanics, Vibrations, Manufacturing Processes

EDUCATION

- **University of Louisiana at Lafayette** - B.S. Mechanical Engineering, Minor in Mathematics
Date of Graduation: May 16, 2025

EXPERIENCE

some roles were fulfilled as full-time student/between semesters.

1. **Safelite AutoGlass**, Scott, LA — Auto Glass Technician May 2022–Jan 2024
 - Replaced windshields; recalibrated ADAS/LiDaR vehicle safety systems.
2. **Ernest P. Breaux Electrical**, New Iberia, LA — Electrician & Machine Operator 2019–2021
 - Constructed industrial substation; experienced all phases of development start to finish.
3. **Granger AC**, Broussard, LA — HVAC Installer 2018–2019
 - Installed HVAC systems for residential and commercial sites.
4. **Chicago Bridge & Iron Co.**, Plaquemines, LA — Instrument Man/Rodman 2017–2018
 - Conducted land surveying/documentation for Shin-Tech Chemical Plant expansion.
5. **Triad Electric & Controls**, Plaquemines, LA — Electrician Apprentice 2015–2017
 - Terminated and installed electronics for Shin-Tech development projects.

PROFESSIONAL DEVELOPMENT

- **Certifications:**
 - **SOLIDWORKS CAD Design Associate** — 3D modeling, FEA, CFD, assemblies.
 - **OSHA 10-Hour Safety & Health** — Focus on workplace safety standards.
 - **MathWorks MATLAB** — MATLAB programming essentials.
 - **MathWorks Machine Learning** — Intro ML concepts & techniques.
 - **ASME & ASTM Standards** — Familiar with key industry codes.
 - **Lean Six Sigma Green Belt** — Lean manufacturing & Six Sigma methods.
- **Leadership & Involvement:**
 - **Study Abroad - College of Engineering Ambassador** — Promote and support global engineering programs around campus.
 - **American Society of Mechanical Engineers (ASME)** — Active in team-based project discussions.

PROJECTS

- **Senior Design: Tricycle Development**
 - Boosted production efficiency 20% using Design for Manufacturability (DFM).
 - Reduced material waste 15% via PFMEA.
 - Implemented sustainability and data-driven process optimization (DoE).
 - **View project website: Tricycle Engineering Portfolio**

SKILLS

- **CAD/CAE:** SOLIDWORKS (FEA, CFD), Catia3DX, ANSYS, SIEMENS PLM, Fusion 360, Mastercam
- **Programming:** MATLAB, Python, Arduino, G-code
- **Quality & Design:** GD&T, DFM, PFMEA, PFD's
- **Manufacturing/Tools:** CNC Machining, 3D Printing, Additive Mfg, Microsoft Office



ACADEMIC PERFORMANCE COURSEWORK PROGRESSION

This chart illustrates my academic progression and consistent performance improvement from 2018 through my projected 2025 graduation. It highlights a clear upward trend in GPA with a strong emphasis on core mechanical engineering coursework including: *SolidWorks CAD Modeling*, *Manufacturing Processes*, *Mechanical Vibrations*, *System Dynamics*, and *Engineering Economics*.

This record of sustained growth demonstrates my technical focus, adaptability, and persistence towards my dream and goal of becoming a mechanical engineer and contribute to the innovation unraveling in engineering industry challenging fields such as in manufacturing and renewable energy.

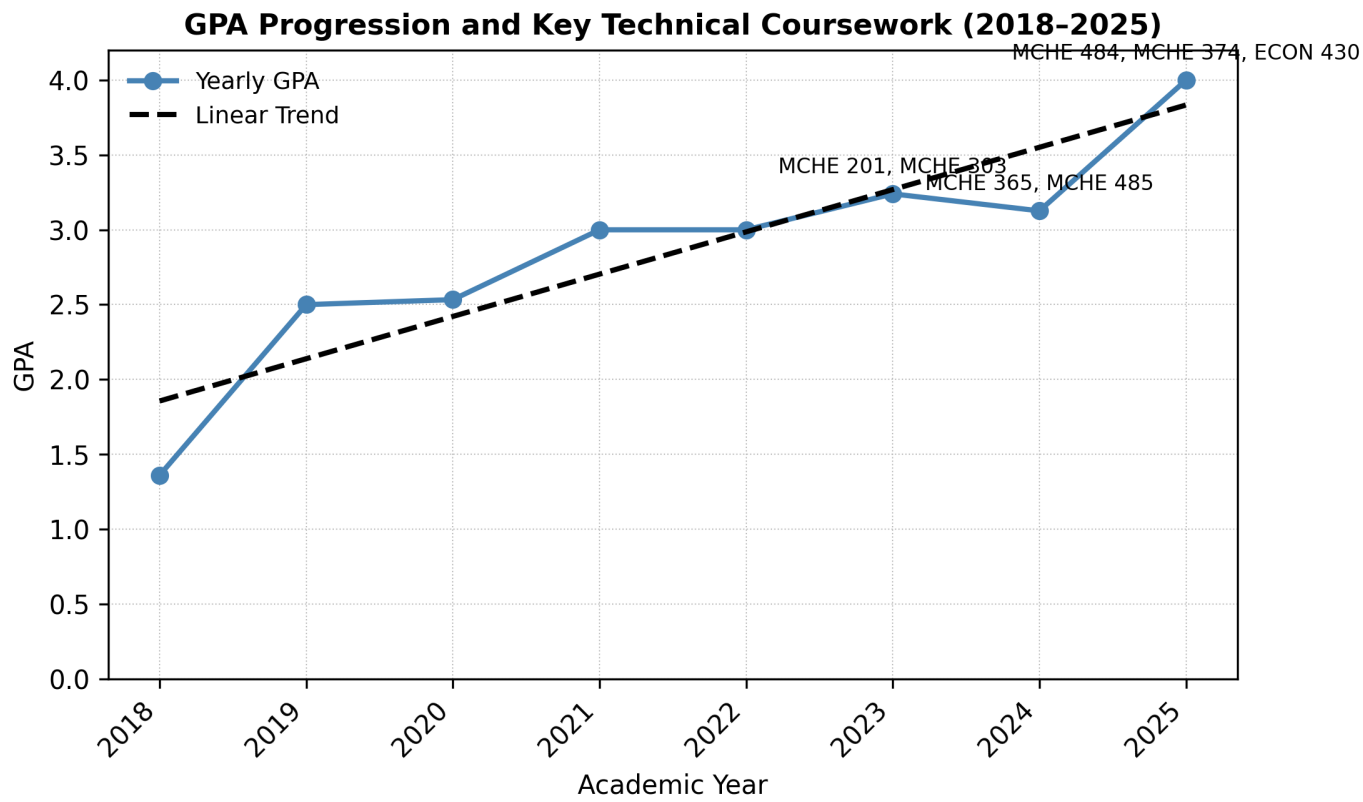


Figure 1: GPA Progression with recent MCHE Coursework (2018-2025)