

John McCulloch

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EDUCATION

Texas A&M University, Mays Business School College Station, Texas
Master of Business Administration August 2025

Texas A&M University College Station, Texas
Bachelor of Degree in Mechanical Engineering May 2025

EXPERIENCE

Texas A&M University College Station, Texas
Artificial Intelligence Researcher, DIVE June 2025 – July 2025

- Implemented machine learning AI algorithms to process high-speed flow data, establishing foundational insights into data integration and model performance.
- Used navigation and command-line operations, and computational workflows across multiple environments.
- During my research project, I gained insight about machine learning, specifically in linear classifiers, regularization, optimization, convolutional neural networks (CNNs), recurrent neural networks (RNNs), and attention-based transformer architectures.

Halliburton Houston, Texas
Research and Development Internship, Sperry Drilling Team May 2024 – August 2024

- Used SolidWorks and ANSYS to test products used in pulse telemetry.
- Thoroughly analyzed a 300+ part system to determine failure points and ensure the system's integrity.
- Increased tool efficiency by 20%, leading to significant gains in operational performance.
- Performed finite element analysis using ANSYS for non-linear and linear simulations on multiple components.
- Read drawings and did geometric dimensioning and tolerancing.

Convergentz Houston, Texas
Building Automation Systems Internship May 2023 – July 2023

- Installed low-voltage building automation system hardware and control wiring in commercial office buildings in downtown Houston.
- Downloaded programs onto field controllers and filled out check sheets for commission agents to ensure they were operating correctly.
- Learned how to read construction plans and control wiring diagrams.
- Helped create code for unit-level controllers.

LEADERSHIP & INVOLVEMENT

Aggies Create College Station, Texas
Team Lead and Senior Mechanical Engineering Advisor January 2025 – July 2025

- Designed and fabricated a SolidWorks model for a custom smoker made from a 250-gallon propane tank, delivering a functional product for the 2025-2026 football season raffle fundraiser for Aggies Create.

Texas A&M University College Station, Texas
Undergraduate Teaching Assistant January 2024 – May 2025

- Led and facilitated classroom activities focused on strengthening students' public speaking, presentation, and communication skills, fostering confidence and engagement.

SKILLS, ACTIVITIES & INTERESTS

Languages: Fluent in Spanish

Technical Skills: SolidWorks, ANSYS Workbench, Python, Altium Designer

Certifications & Training: OSHA 10