



# Matthew McCormick

## Aero/Mech Engineering Student

Engineering student with a strong work ethic and attention to detail looking for an internship to put my technical knowledge to use and advance in a real-world engineering setting. I'm excited to be part of a creative team, absorb knowledge from knowledgeable experts, contribute significantly to difficult engineering projects, and lay the groundwork for a successful engineering career.

## Contact

### Phone

903-368-0042

### Email

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### Address

930 Bengue Dr 429D Arlington, Tx 76019

## Education

Aug 2021- Dec 2025

### Bachelor of Science, Aerospace Engineering

The University of Texas, Arlington

Aug 2017- May 2021

### Associates Degree, General Studies

Tyler Junior College

## Skills

- Microsoft Office skills in Powerpoint, Excel, and Word
- Design and simulation using SolidWorks and similar CAD software
- Experience using Matlab, Python, C, and other common coding languages
- Familiar with Ansys simulation software, specifically Ansys Fluent
- Analytical report writing, with ability to create graphs and charts
- Lab experience including using of common laboratory tools
- Knowledge of common STEM principles and practices
- Basic knowledge of electronic components and circuits
- Collaborative teammate with effective communication and presentation skills
- Ability to critically analyze problems and provide detailed solutions

## Past Employment

March 2022 - Present

### Whole Foods Market

Aug 2023 - May 2024

### UTA Academic Success

## Relevant Course Work

### MAE 4314 Mechanical Vibrations

Harmonic and periodic motion including both damped and undamped free and forced vibration. Single and multi-degree-of-freedom discrete systems. Vibration of continuous systems. Introduction of finite element method for structural dynamics.

### MAE 3182 Aerodynamic and Fluid Lab

Wind tunnel experiments to study flow phenomena of aerodynamics interest, including scale testing of airfoils, wings, and aircraft.

### MAE 3304 Astronautics 1

Introduction to astronautics, the solar system, and the two-body problem. Orbit shaping and orbit transfers. Patched conic approximations for interplanetary transfers. Introduction to the three-body problem and relative motion. Rigid spacecraft equation of motion. Active and passive attitude stabilization techniques for spacecraft.

### MAE 3303 Compressible Flow

Fundamental thermodynamic concepts of compressible flow, isentropic flow, normal and oblique shock waves; expansion waves; quasi-one dimensional flows within nozzles and diffusers, linearized compressible flow theory, the method of characteristics and supersonic nozzle design.

### MAE 3302 Incompressible Aerodynamics

Introduction to and application of the methods used to determine the low speed aerodynamic forces on aerodynamic components such as wings and airfoils. Topics include potential flow theory for lifting flows; airfoil and finite wing theory; panel and vortex-lattice methods.

### MAE 3315 Aerospace Structural Statics

Overview of aircraft basic structural elements and materials; introduction to elasticity; equations of equilibrium; constitutive equations of isotropic solids; bending and torsion analysis of thin-walled beams; flexure shear of thin-walled beams with stringer reinforcement; introduction to fatigue and fracture analysis; failure criteria; energy method to find strain energy release rate; elastic column buckling.

### Other Engineering Courses Completed

Engineering Analysis	Solid Mechanics
Thermodynamics 1	Methods and Measurements
Dynamics	Numerical Analysis and Programming
Circuit Analysis	Statics
Fluid Dynamics	Problems in MAE
Solid Mechanics	Intro to Mechanical Design
Structural and Mechanical Behaviors	Intro to Aerospace

## Accomplishments

Nominated for 2023 Engineering Royalty by UTA Engineering Student Council

2022 Kalpana Chawla Hall Council Vice President

13th Place 2021 Universal Interscholastic League 3A Texas Mathematics Competition

Tyler Junior College Graduate 2021 Magma Cum Laude

Grand Saline HS Class of 2021 Valedictorian

\*References available upon request\*