

Alexander Ashcraft

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EDUCATION

Ohio State University

August 2023 - Present

- BS Mechanical Engineering — Anticipated Graduation: May 2027

Relevant Coursework

- **Engineering & Mechanics:** Statics, Fundamentals of Engineering I & II, Engineering Economics
- **Math & Science:** Calculus I–III, Physics I: Mechanics, Physics II: Electricity & Magnetism, General Chemistry I

TECHNICAL SKILLS

CAD/FEA: SOLIDWORKS, Fusion 360, OnShape, Inventor

Manufacturing/OA: 3D Printing, CNC mill, GD&T, Tolerancing

Test & Quality: Test planning, Data Logging, Calipers, Dial Indicators, Torque Tools; SPC Basics; QMS; CMM

Programming & Analysis: MATLAB, Excel (data analysis, graphing, pivot tables), Arduino

Documentation: BOMs, Assembly Work Instructions, Engineering Drawings

Other Tools: Adobe Substance Suite (Painter, Designer, Modeler)

PROJECTS

Mobi Lift: Accessible Vehicle Seating System | (MATLAB, SOLIDWORKS, Excel) |

January 2025 - April 2025

- Designed and tested mechanical components for a custom portable assistive seat using SOLIDWORKS.
- Programmed servo motor control with MATLAB and Arduino, validating performance through prototype testing.
- Applied mechanical design, control systems, and product validation methods in line with quality engineering principles.
- Selected to present at the competitive Fundamentals of Engineering Design Showcase.

Connect4 & Crabs: Matlab Game Development | (MATLAB, Excel) |

August 2024 - December 2024

- Applied structured problem-solving and the engineering design process to plan, prototype, and iterate gameplay.
- Programmed win logic, input validation, animations, and game states using MATLAB's simpleGameEngine.
- Documented design decisions, debugging strategies, and testing results in a comprehensive technical report.

EXPERIENCE

NAPA Auto Parts – Genuine Parts

June 2022 - August 2022

Parts Specialist

Elmsford, NY

- Processed 100+ customer orders per week with a 99% on-time delivery rate.
- Conducted weekly inventory audits, correcting discrepancies worth \$5,000+ and boosting operational efficiency.
- Collaborated across departments, gaining exposure to operational workflows and quality assurance practices.
- Assisted 50+ customers daily, providing parts recommendations and increasing add-on sales

EXTRACURRICULARS

Ohio State University Pole Vault Club

August 2024 - Present

Rising Member

Columbus, OH

- Competitive track & field involvement; developed physical discipline and commitment through regular training and team participation.

Buckeye Solar Racing Club

June 2024 - April 2025

Structural Engineer

Columbus, OH

- Used SolidWorks and Autodesk to design and validate load-bearing chassis components.
- Led physical testing for torsional stiffness and impact resistance to align with race safety standards.
- Contributed to system integration, lightweight design optimization, and documentation for QMS purposes.

ENTREPRENEURSHIP

Founder of Alex's 3D Model Shop

December 2020 -

Present

- Completed 50+ custom 3D modeling and printing, managing full workflow from design to production using Blender.
- Delivered quality custom solutions while developing client communication, and technical design skills.