# Thomas J. Tahmassebi

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## EDUCATION

**The Ohio State University**, Columbus, OH
B.S., Aeronautical and Astronautical Engineering, May 2020
General Business Minor, May 2020

## EXPERIENCE

**Contractor Assistant, Restoration Contracting** (2019-2020)
- Refurbished homes in the Grandview Heights area of Columbus. Developed woodworking and masonry skills to complete projects, including renovating kitchens and building cabinets

**Shift Lead, Breakout Games** (2017-2018)
- Guided customers through an escape room experience, memorized each puzzle and clues to give, ran the front desk to book appointments and greet customers, and trained new employees

**Laboratory Assistant, Physics Research Building** (2016)
- Maintained physics research laboratory cleanliness, including refilling equipment with cryogens and following organic and inorganic clean room protocols

## ACADEMIC PROJECTS

**Supersonic Executive Jet Design Project** (August 2019 – April 2020)
- Utilized SOLIDWORKS, Fluent, and Modeling software to illustrate and analyze aircraft and design a supersonic executive jet capable of Mach 1.4 that will meet specific design criteria.
- Aerodynamics Lead: Responsible for researching and modeling aircraft surfaces, as well as analyzing design using simulation software.

**Background Oriented Schlieren Transonic Buffeting Reduction** (August 2019 – April 2020)
- Designed, tested, and improved supercritical airfoil to reduce transonic buffeting phenomena at higher angles of attack. Utilized transonic wind tunnel with background oriented Schlieren imaging to photograph and analyze airflow.
- Experimental Lead: Fabricated supercritical airfoil for testing using SOLIDWORKS and CNC manufacturing techniques. Created transonic wind tunnel experiments to effectively test airfoil.

**Buckeye Space Launch Initiative 30k Structures Team Member** (January 2018 – May 2018)
- Fabricated carbon-fiber rocket body and nose for 30k Intercollegiate Rocket Engineering Competition (IREC). Used CNC molds and various techniques to create structures.

## SKILLS

- **Engineering Coursework**: Helicopter Aerodynamics, Advanced Air-Breathing Propulsion, Hypersonics, Design of Atmospheric Flight Vehicles, Intro to Propulsion, Thermodynamics, Fluids, Numerical Methods, Circuits, Heat Transfer, Gasdynamics, Aircraft Structures, Flight Vehicle Controls, Intro to Engineering Materials
- **Business Coursework:** Microeconomics, Accounting, Finance, Human Resources, Operations Management, and Marketing
- **Microsoft Office:** Project experience and proficient with Word, Excel, PowerPoint, and Publisher
- **Programming**: Experience with C++, MATLAB, and other basic coding software (Arduino, etc.)
- **Software Applications**: Project experience with SOLIDWORKS, ANSYS, Fluent and Simulink
- **Other Skills:** Knowledge of cryogenic handling procedures and proper clean room etiquette and hands-on experience with various welding methods

## ACTIVITIES & INTERESTS

- Active member of the Buckeye Standup Comedy Club (BSCC), (August 2019 – May 2020)
- Completed Hobart Institute of Welding course: Welding for the Non-Welder (Dec 2017)
- Kent State Hackathon 2018, created and managed database for new social media app