

# Morgan Malencia

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## EDUCATION

### The Ohio State University, College of Engineering

*Bachelor of Science in Mechanical Engineering*

- Current 3.827 GPA
- Relevant coursework: FEM, System Dynamics, Controls, Mechatronics, Measurements, Thermodynamics, Fluids, Heat Transfer, Mechanics of Materials, Machine Elements, Circuits, Kinematics, Intro to Design, Numerical Methods

**Columbus, Ohio**

*Expected May 2021*

## RELEVANT EXPERIENCE AND SKILLS

### American Showa Inc.

*Research and Development Intern*

- Worked with the Test and Simulation Team to research and test dampers to meet certain specifications, mainly Civic Type R
- Researched and tested new strain sensors to find loads in tie rods on various vehicles for efficient, on car testing
- Piloted the development of a display screen for presentation vehicles to show test settings and changes in real time

**Sunbury, Ohio**

*Spring, 2020*

### Norfolk Southern Corporation

*Mechanical Engineering Intern*

- Utilized AutoCAD Inventor to design equipment storage racks, ladders, tooling, and parts in compliance to NS standards
- Assisted in the standardization of work, tooling, and improvement efforts across the entire NS system and locations

**Conway, Pennsylvania**

*Summer, 2019*

### Formula Buckeyes FSAE Team

*Technical Director and Capstone Project*

- Oversee manufacturing processes, member relations, subsystem integration, and other leads in all design, build, and test stages
- Capstone project focusing on suspension design, simulation utilizing CarSim, testing, and validation of setups

*Brakes Team Lead*

*May 2018 – Present*

- Design, simulate, manufacture and test the outboard braking system for a student built, formula style racecar
- Mentor team members in engineering processes, competition strategies, time management, and organizational skills
- Perform various design presentations at competitions; driver of acceleration event

*General Team Member*

*August 2017 – May 2018*

- Attended meetings biweekly, worked under a graduate student in the research and manufacturing of various components
- Attended competitions in Michigan, U.S.A and Barrie, Canada, assisted in design and cost presentations and driving

## Technical Skills

- Intermediate knowledge of computing and coding with MATLAB, modeling and FEA with SolidWorks, Ansys, and AutoCAD
- Experience working with mills, lathes, CNCs, Waterjet Cutters, 3D Printing, and Arduino software and prototyping
- Proficient in Microsoft Word, Excel, PowerPoint

## OTHER EXPERIENCE AND ACTIVITIES

### The Ohio State University

*Grader for Mechanics of Materials, System Dynamics, Measurements*

- Graded assignments and quizzes for various courses using prior knowledge and professor guidelines
- Assisted professor and students when necessary, creating rubrics and lecture presentations

*Teaching Assistant for Fundamentals of Engineering II*

- Assisted the professor and students during class and lab periods, answered any questions that may arise
- Graded homework and lab reports as well as was available to help outside of class

**Columbus, Ohio**

*January 2019 – December 2020*

*January 2019 – May 2019*

### St. Clair Country Club

*Assistant Pool Manager*

- Managed roughly 40 employees in the daily operations of the pool and snack shack under COVID regulations
- Regulated pool chemicals, created weekly lifeguard schedules, hosted full club events and private parties
- Provided members with private swim lessons as well as assistant coached the diving team

**Pittsburgh, Pennsylvania**

*August 2016 – Sept. 2018, May 2020 – August, 2020*

## ACHIEVEMENTS

- Mech. Eng. Internship with the Naval Nuclear Lab (DOE L Clearance Req.) for Summer 2020 – Canceled due to COVID-19
- Dean's List – Autumn 2017, Spring 2018, Autumn 2018, Spring 2019, Autumn 2019, Autumn 2020
- National Buckeye Scholarship, Maximus Scholarship – The Ohio State University
- Ford Vehicle Team Scholarship – Ford Blue Oval Network
- SWE Scholarship – Society of Women Engineers
- Bechtel Citizen Scholars Award - Bechtel Marine Propulsion Corporation
- SEMA 2020 Memorial Scholarship – Specialty Equipment Market Association