248-308-0258 | **Rohan Dalvi** | 22600 Cyprus Drive
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EDUCATION

University of Michigan — Ann Arbor, MI
BSE in Mechanical Engineering — Expected Graduation: April 2021
3.367 GPA (Dean's List, Winter 2019 and Fall 2017)
Relevant Coursework**:** Behavior of Materials; Dynamic Systems; Intro. To Finite Elements; Elec. Circuits, Systems, and App.

TECHNICAL SKILLS

Applications | Solidworks, Siemens NX, Autodesk Fusion 360, ANSYS, ADAMS, Artemis Suite, Git, Ultimaker Cura
Languages | Python, MATLAB, Simulink, C++, SQL, HTML, CSS

EXPERIENCE

Be a Maker Club | Product Engineering Intern **|** Greater Los Angeles, CA — June 2020-Present
- Working on early stage product development using Autodesk Fusion 360 to design components and assemblies

Toyota Motor North America, Inc. | Summer Design Co-op (*shortened due to COVID*) **|** Saline, MI — June 2020
- Created marketing strategy using Toyota A3 report format to promote a wheelchair accessible minivan and increase target market share by 5% through a combination of advertisements, YouTube videos, and dealer training
- Attended a series of webinars to gain insight into Toyota's engineering, management, and Kaizen philosophy

BorgWarner Inc. **|** Engineering Intern **|** Auburn Hills, MI — May 2019-August 2019
- Utilized Artemis Suite and Excel to conduct long-term investigation into abnormal torque fluctuation with level and FFT analysis, and presented findings to engineers to improve preventative maintenance schedule
- Wrote MATLAB scripts to automate spin loss data entry and analysis, saving 30 minutes per batch of spin loss tests
- Executed Noise, Vibration, and Harshness testing of 6 transfer cases on a dyno in a semi-anechoic room with NVH team

Michigan Electric Racing (Formula Electric SAE) | Dashboard Engineer **|** Ann Arbor, MI — September 2019-Present
- Responsible for integration of controls systems in a layout that is ergonomically friendly for the driver and sturdy
- Designed shockproof and waterproof 3D-printed enclosure for dashboard display and its PCB with Siemens NX

Michigan Electric Racing (Formula Electric SAE) | Steering System Lead **|** Ann Arbor, MI — September 2017-September 2019
- Redesigned steering system with Siemens NX to reduce weight by 10% and increase reliability while handling ANSYS-simulated 80Nm torque load, resulting in the team taking 2nd place at the Formula North competition
- Analyzed failures of previous steering design and prepared documentation that set new goals for reliability and weight
- Used MATLAB to analyze tire data to perform Ackerman angle calculations for suspension design

PROJECTS

ME 350: Design and Manufacturing II | Team Member — September 2019-December 2019
- Worked on a team of 4 students to design and manufacture a 4-bar linkage controlled by an Arduino utilizing PID control and IR proximity sensors for a competitive game, finishing in the top 25% of all teams competing
- Performed ADAMS kinematic simulation on linkage to optimize gear ratio of transmission from motor to linkage

ME 250: Design and Manufacturing I | Squad Leader — January 2019-April 2019
- Led a 5 student team to create a robot on time and under budget by scheduling, setting deadlines, and managing expenses
- Conducted mechanical design of robot to given constraints with Solidworks, and was responsible for 60% of final CAD
- Manufactured robot by utilizing a mill, lathe, laser cutter, and waterjet, and was responsible for 35% of final parts

CODING PROJECTS

Personal Coding Projects | github.com/rohdalvi — July 2017-Present
- Developed an interactive dashboard to visualize changes in stock prices using Python, an API, and a SQL database
- Coded a predictor for March Madness games with Python that utilizes .csv input and basic machine learning
- Created a personal website to display my skills and experiences while also improving my HTML and CSS skills

SI 206: Data Oriented Programming (Final Project) | Student — September 2019-December 2019
- Developed a Python program in a team of 3 to pull data from 4 APIs, store it in a SQL database, and then plot the data
- Wrote functions that utilized matplotlib and a Google Maps API to visualize data in charts as well as on a map

EECS 280: Programming and Intro. Data Structures (Piazza Classifier) | Student — January 2018-April 2018
- Created a machine learning classifier in C++ that sorted Piazza student forum posts by topic
- Wrote functions to pre-process data to be fed to classifier and test cases to check exception handling logic