Rohan Dalvi

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EDUCATION

University of Michigan   Ann Arbor, MI
BSE in Mechanical Engineering, Minor in Computer Science   Expected Graduation: April 2021
3.276 GPA
Relevant Coursework: Intro. to Solid Mechanics, Thermodynamics I, Programming and Intro. Data Structures

ACTIVITIES

Vehicle Dynamics and Chassis Engineer, Steering Design Lead -   September 2017-Present
Michigan Electric Racing (Formula Electric SAE)
- Redesigned steering system to reduce weight and effort required to turn wheel, while being able to handle 80Nm of torque
- Used MATLAB to analyze tire data to perform Ackerman angle calculations
- Used Solidworks to CAD steering system and mount within chassis, as well as to CAD a sensor mount
- Analyzed positives and negatives of previous steering design and prepared documentation to inform new members about the goals of steering design for the current year
- Researched a multitude of options for steering design and geometry for racing applications to fit within potential budgets of $750 and $150, while increasing reliability and reducing weight by 10%

Cofounder, Vice President - Northville High School Aerospace Club   December 2014-June 2017
- Designed, assembled, tracked with a SpotGPS, and recovered payload for first launch
- Organized club activities and weekly meetings, and gave weekly presentations to update club members
- Tested components; researched sturdier, modular parts; and tracked payload for second launch
- Acquired a historic project aircraft for the club to restore and a hangar to store it in
- Led social media effort by running accounts and editing videos to build club brand leading to 100% membership increase

Member - DECA   September 2014-June 2017
- Competed at state finals in 2015, 2016, and 2017 in the Automotive Services Marketing Category
- Won awards for test score and presentation on both regional and state levels (2015, 2016, 2017)

Volunteer - Northville Public Library   June 2013-August 2016
- Drop-in tutored for technology assistance, including basic PC, iOS, and Microsoft Office help
- Ran youth and teen events and programs such as movie nights and arts and crafts workshops

EXPERIENCE

Engineer in Training – ENGR 100-150: A River Runs Through It   January 2017 – April 2017
- Aimed to prevent erosion of a river bank by reducing stream velocity by 44% with a rock vane
- Designed rock vane in Solidworks and conducted Finite Element Analysis to ensure vane would withstand forces of 40N

Intern - The Village Workshop   June 2016-August 2016
- Designed, machined, and painted a sign for workshop use to advertise lumber for sale using Autodesk Inventor to design the sign and a CNC machine to machine it
- Assembled a cart for moving plywood and tools around the workshop by using a CNC machine to cut out components and basic power tools to assemble it
- Learned to operate basic workshop machinery and power tools safely in a workshop environment

Tutor - Northville Academy   August 2017-September 2017
- Instructed children from elementary to middle school in math skills with a variety of educational tools

TECHNICAL SKILLS

- Applications: AutoCAD Inventor, Solidworks, Siemens NX
- Languages: MATLAB, C++, Python