

Siddhesh Shailesh Rajput

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EDUCATION

Master of Science in Mechanical Engineering (GPA: 3.78/4.00) **May 2019**
The University of North Carolina at Charlotte, Charlotte, NC

Bachelor of Engineering in Mechanical Engineering (CGPA: 7.23/10.00) **May 2017**
University of Mumbai, Mumbai, India

Relevant Coursework: Finite Element Analysis, Advanced Manufacturing Processes and Equipment, Gear Manufacturing and Metrology, Project Management, Machine Tool Metrology, Mechatronics, Machine Design

SKILLS

- **Software:** SolidWorks, CATIA V5, Creo Parametric, ANSYS, ABAQUS, AutoCAD, Autodesk Inventor, MATLAB, Optimum Kinematics, Lotus Suspension Analysis
- **Computer Skills:** Microsoft Office (Excel, Office, PowerPoint, Project)
- **Fabricating skills:** CNC Machining (G&M codes programming), Welding (Arc, TIG, MIG), Cutting, Grinding, Drilling and Milling

LEADERSHIP AND CAMPUS EXPERIENCE

Suspension Department Head, Team DJS Kronos India, BAJA STUDENT INDIA **March 2015-February 2016**

- Responsible for overall improvement in designing, analysis and manufacturing of vehicle components in the suspension system. Delivered the fabricated parts in time as per the scheduled project plan.
- Modeled and analyzed steering upright and double wishbone suspension system on SolidWorks and ANSYS respectively.
- Made several reports of my department which includes bill of materials, and design failure mode and effect analysis (DFMEA). Drafted 3D & 2D CAD into drawings using geometric dimensioning and tolerancing (GD&T).
- Designed and manufactured fixtures for front and rear assembly of the suspension system.

Member, Team DJS Kronos India **March 2014- February 2016**

- Performed design calculations of spring, modeled spring-mass-damper system and selected optimum shock absorber.
- Designed and fabricated double wishbone suspension on SolidWorks.

ACADEMIC PROJECTS

1. Vision Inspection System: Graduate Design Project, Schaeffler Group USA **August 2018 - Present**

- Designed CAD models of various components of the electro-mechanical and sorting sub-system using Creo Parametric (Pro/Engineer). Prepared 2D and 3D drawings using geometric dimensioning and tolerancing (GD&T).
- Chose quality material to reduce cost and performed manual stress/strain calculations and analyzed CAD models on ABAQUS to evaluate von Mises Stress and deformation.
- Generated purchasing orders and bill of materials for the electro-mechanical sub-system.
- Communicated and coordinated with team members, mentor and industry supporter for the desired product.

2. Estimation of different machine tool errors: Machine Tool Metrology Project, UNC Charlotte **May 2018**

- Operated a 3-Axis milling machine using a developed program (G&M codes) to obtain data for error estimation of the machine tool with the help of laser system and optics.
- Modified the program to record data and readings, and to calculate different errors and its deviations for different axes.

3. CNC machining of a spur gear: Gear Manufacturing and Metrology Project, UNC Charlotte **May 2018**

- Designed and simulated a CNC part program using G & M codes for machining a spur gear on Quindos.
- Machined the part on a 3-Axis CNC Milling machine using the developed program and measured part features on CMM.

4. Analysis of a bar fixed at one end: Finite Element Analysis Project, UNC Charlotte **May 2018**

- Developed a MATLAB code for one-dimensional analysis of a bar fixed at one end.
- Performed modal analysis using Gauss Quadrature rule and dynamic analysis using a Heaviside function.

CERTIFICATIONS

Six Sigma Green Belt Online Course: Udemy **January 2019**

CATIA V5 with GD&T Certification: CADD Centre Training Services, Mumbai **May 2017**

3D Printing & Application: Imaginarium Academy, Mumbai **March 2016**

Sheet Metal Forming: Larsen & Toubro, Mumbai **August 2015**

SolidWorks with GD&T Certification: CADD Centre Training Services, Mumbai **February 2015**