

MECHANICAL ENGINEER

Education:

Bachelor of Science in Mechanical & Aerospace Engineering (May 2019)

Illinois Institute of Technology - Chicago, IL

GPA: 3.5/4.0

Certifications: Autodesk Inventor Professional Software and AutoCAD Software

Skills

- 5 years of experience with CAD packages (SolidWorks, Autodesk Inventor, AutoCAD, CATIA)
- 3 years of experience with Analysis (Linear & Non-linear Static, Dynamic, Design Optimization)
- Experience with Finite Element Analysis, Mechanical Design, Product Design and Development
- Experience with advanced material selection for prototyping, manufacturing, and 3D printing

Experience:

Mechanical Engineer (9/2019 to Current)

Finite Element Analysis of Industrial Robotic Assembly

- Designed a 6-axis SCARA Robot for pick and place operation in automotive industry.
- Performed static analysis with stainless steel 304 to evaluate the maximum load.
- Optimized design for varying mesh sizes and element order.
- Simulated assembly with dynamic analysis to find distorted elements and verify structure.

Reliability Engineering Analysis on Automotive Oil Pump

- Used industrial reliability specifications to select power consumption and flow rate at three distinct levels of rpm to study its variability.
- Conducted Failure Mode Effect Analysis (FMEA) to analyze potential causes of failures.
- Provided vegetable oil as a coolant, which resulted in unburnt and recyclable chips.

Mechanical Engineering Intern (06/2018 to 08/2018)

- Initiated a project to perform a failure investigation in mufflers due to the low clearance of roads.
- Established and coordinated maintenance, safety procedures, and supply of materials.
- Developed failure reports including feedback based on common failures in automotive industry.
- Set up and calibrated accelerometers on Hyundai cars to conduct tests to analyze the modes of vibration of the vehicle and the steering column.

Manufacturing Engineer Intern (05/2017 to 07/2017)

- Analyzed automation, process parameters, different equipment to shape and control the profile of chips, and manufacturing process of Hot Strip Coil.
- Re-designed the existing shop floor to improve space utilization, increase material flow, optimize labor, reduce holding costs by 5%, and improve space utilization by 20%.
- Performed statistical analysis on historical data of the operating parameters to identify significant factors contributing to process deviation and affecting the cold crushing strength of the pellet.
- Generated Bill of Materials and calculated overall manufacturing cost.