

SHUBHAM JAIN

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SUMMARY

Detail-oriented & dedicated professional looking forward to achieving excellence in the field of product design & manufacturing. Seeking co-op opportunities for Spring & Summer 2020.

WORK EXPERIENCE

- Quality Engineering Intern, Indian Railways, Pune, India** Apr '18 – May '18
- Evaluated failure reports of diesel locomotives using fish-bone diagrams & discussed solutions to minimize downtime
 - Suggested layout changes of power assembly division which reduced worker movements by 10%
- Engineering Intern, Kangtani Sales, Pune, India** Summer '16,'17
- Drafted AutoCAD drawings as per client's requests for CNC machined or laser engraved parts
 - Used MasterCAM for tool path generation and made sure that the spindle doesn't run into any of the bed clamps

ACADEMIC PROJECTS

- Airplane Production Simulation using Lean Manufacturing, MTU** Jan '19 – Apr '19
- Simulated 3 production runs of paper planes while continuously reducing cycle time using JIT & Kaizen activities
 - Successfully achieved target *takt* time with fewer operators and managed inventory using Value Stream Mapping
 - Standardized the work procedure for repeatability and improved accuracy by employing Poka Yoke
- Additive Manufacturing of a Product Targeting the Consumer Market Segment, MTU** Jan '19 – Apr '19
- Eliminated assembly time and reduced overall production time of a gear train for a wrist watch
 - Manufactured the product using only a third of the budget and costing 78% cheaper than traditional manufacturing
- Quality Control using Statistical Methods, MTU** Aug '18 – Dec '18
- Implemented control chart technique (SPC) & identified root causes in simulated data
 - Performed Process Capability study & recommended corrective measures towards continuous improvement
- Design, Development & Analysis of Aerodynamics of a Car, SPPU** Jul '17 – Jun '18
- Reduced overall drag by 14% after simulating aero-body designs iteratively using SolidWorks, Creo & Ansys Fluent
 - Designed radiator ducts for better cooling efficiency and reduced core size of the radiator itself
 - Increased the negative lift (downforce) by using an undertray ("*venturi*" like *diffuser*) to improve cornering speeds
- On-going Projects this Fall**
- 4-5 products to be manufactured using a 3D Printer (Delta type Open Source) and testing them for mech. strength

ENTERPRISE EXPERIENCE

- Team VAMOS Autocross** *University Enterprise building F1 style prototype to participate in FSAE events in India & Japan*
- Deputy Captain** Aug '17 – Jul '18
- Implemented jigs and fixtures for mistake-proofing while assembling (*poka yoke*)
 - Performed DFMEA as per DVP for wheel assembly and drive train
 - Negotiated sponsorship contracts with partners (*for out-sourced parts*) to cut down on budget by 15%
 - Presented virtual business plan and cost report in front of a panel of industry professionals
- Chassis & Body-works Lead** Aug '16 – Jul '17
- Designed 12% lighter space frame chassis in ProE & modelled the outer-body in SolidWorks
 - Analyzed different chassis iterations for optimized strength and weight in Ansys Workbench
- Procurement Head** Aug '15– Jul '16
- Managed raw material and spare parts inventory & practiced 5S in the machine shop
 - Converted 3D solid models to 2D drawings in AutoCAD for machining and documentation

EDUCATION

- Michigan Technological University (MTU) – Houghton, MI Expected: May 2020
- MS in Mechanical Engineering** | Design & Manufacturing GPA: 3.84/4.00
- Savitribai Phule Pune University (SPPU) – Pune, India Graduated: July 2018
- Bachelor of Engineering, Mechanical Engineering** GPA: 3.59/4.00

TECHNICAL SKILLS

Creo | SolidWorks | Catia | NX | HyperMesh | Ansys | OpenSCAD | AutoCAD | MasterCAM | Matlab | Minitab | Visio