RISHIKA JAIN

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SUMMARY:

Enthusiastic, skilled mechanical engineer with three years of experience in design, manufacturing, quality & customer service with a strong focus in industrial management looking for full time position. Passionate about providing business solutions and managing data

CORE STRENGTHS & SKILLS			
Ergonomics and Plant layout	Statistical Analysis	Total quality management	Project Management Skills
Quantitative Research Methods	Predictive Modeling	Quality Assurance	Customer service and Client interaction
Production Planning and Control	Machine learning	Detail Oriented	Problem solving and strategic thinking
Operation Research	Regression Testing	Effective communicator	Business and management skills

Technical Skills:

CAD/CAE, 3D Modeling & FEA scripting: SolidWorks, ANSYS Workbench, MAPDL, AutoCAD, NX (UG), CATIA, Hyper-Works, Creo (Pro-E)
Manufacturing: GD&T, Kaizen principles, Lean six sigma, 5S, DOE, DOM, FMEA, SPC, SQC, PPC, Operation Research, CNC
Scripting: MATLAB, Python, C, Java, SQL
Machining experience: 3D printing, Turret Lathe, Milling, Drilling , CNC, Injection Molding
Data Management & Planning: Microsoft Project, MS Office (Excel, PowerPoint, Word)

EDUCATION:

Master of Engineering in Mechanical Engineering **Aug 2018- Dec 2019**
Duke University Pratt School of Engineering,USA ; Specialization: Computational Mechanics & Scientific Computing **GPA:3.1**

Bachelor of Technology in Manufacturing Engineering **Aug 2012-June 2016**
Dr. A.P.J. Abdul Kalam Technical University, UP, India **GPA:3.6**

EXPERIENCE:

Teaching Assistant: Fluid Mechanics Course **Jan 2019- May 2019**
Duke University, Durham, NC, USA
- Assisted over 60 students with problem-solving, report analysis, assignments and exams.

Computing Intern: Duke Law and Duke Biological Sciences **June 2019- Dec 2019**
Duke University, Durham, NC, USA
- Customer service in the form of providing solutions to the various technical IT issues and troubleshooting.

Application Engineer **Sept 2017- June 2018**
Autronicals Infotech Pvt. Ltd., Delhi, India
- Met with new and prospective students, planned meetings, and developed critical strategies for marketing.
- Led and trained a team of students in software design and helped them complete projects through peer mentorship and team building.
- Provided continued education in Auto-CAD and 3D modelling techniques to students.

Production Engineer **June 2016- Aug 2017**
MKU Ltd., Kanpur, India
- Assisted process development team in preparing MPS & BOM, implementing 5S and inventory planning.
- Used lean model, six sigma, and 5S, which resulted in improving efficiency and saved up to $10,000.00 in manufacturing costs.
- Inspected machining processes such as Injection molding and used CNC machines to control parameters.
- Developed and controlled workflow processes for quality improvement of the ongoing production.
- Designed a mold and die for a material for the enhancement of resistance and failure properties in the helmet.
- Developed process validation and risk assessment for the newly developed helmets to test wearability.
- Created strategical testing methods to evaluate the effects of various conditions on particular materials.
- Performed various simulation studies using ANSYS for projectile impact and tensile testing.

Design Engineer Intern **April 2016 - July 2016**
Dimi Works, Lucknow, India
- Designed creative parts used in decorations in CAD using SolidWorks for 3D printing
- Used techniques for functional and rapid prototyping

CAD and CAE Intern **June 2015 - Aug 2015**
Central Institute of Tool Design, Hyderabad, India
- 2D & 3D CAD designing, Assembly of complex machines such as shaping and grinding tool using SolidWorks and AutoCAD
- Used ANSYS workbench, Mechanical APDL for static structure analysis and Dynamic and Thermal Analysis on electrical tower

Mechanical Engineer Intern **June 2014 - Aug 2014**
Tata Motors, Lucknow, India
- Developed means of examining the integrated process flow for all shops of a bus manufacturing floor.
- Assisted in the investigation of issues relating to the machining processes. Inspected vehicle before dispatch through information retrieval and communication system.

PROJECTS & PUBLICATION:

1. Data Analysis and Visualization : Analysed data from DEA Opioid Drug analysis for mortality using **Python** and **Tableau**
2. **Additive Manufacturing** of fuel nozzle and exhaust duct for gas turbine designed using **SLS** and **FDM** 3D printing
3. **Design and Analysis** of Automotive Powertrain engine housing and its weight reduction using SolidWorks & ANSYS
4. **Reverse Engineering f**or Insulin pump, Omnispod
5. Analysis of nonlinear bending of elastoplastic material developed **FEA Algorithm** using **MATLAB & ANSYS**
6. Laplace Beltrami operation in embedded **FEM** using **MATLAB**
7. Projectile Impact and drop test simulation of the ceramic plate using **ANSYS**
8. Mold and die design for a helmet component in **SolidWorks** and **life cycle analysis**
9. Solar bot, Line following/Light following bot, **Marketing Campaign Management**.
10. **Manufactured** an operating Go-kart in **CNC programming** and designing using motor-bike Engine. **3D Modelling** of Go-kart chassis in **SolidWorks** and analysis of chassis using **ANSYS** for **stress testing**
11. Modeling of Twin Turbocharged V6 car engine in **SolidWorks, Auto-Cad & analysis of piston in ANSYS**

"**Performance and Economic Design Evaluation of Twin Turbochargers in V6 Engine**"; **IEEE paper ID: PID4111405 -ICETECHGE271**