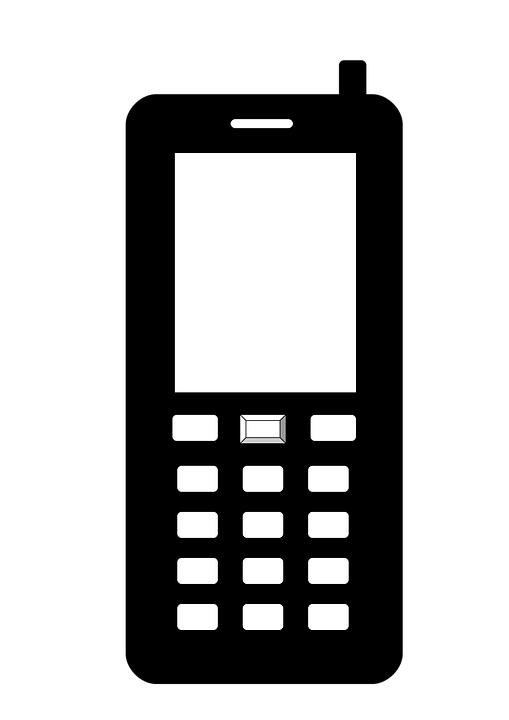
**RISHIKA JAIN**

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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

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| **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**: Creo (Pro-E),SolidWorks, ANSYS Workbench, MAPDL, AutoCAD, NX (UG), CATIA, Hyper-Works

**Manufacturing**: GD&T, Kaizen principles, Lean six sigma, 5S, DOE, DOM, PFMEA, 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

**Bachelor of Technology in Manufacturing Engineering Aug 2012-June 2016**

Uttar Pradesh Technical University, UP, India

**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 elastoplastic 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. Model Based Data Science: Detecting machining anomalies in the component degradation of the cutting tool using **Python**
2. Data Analysis and Visualization : Analyzed data from DEA Opioid Drug analysis for mortality using **Python** and **Tableau**
3. **Additive Manufacturing** of fuel nozzle and exhaust duct for gas turbine designed using **SLS** and **FDM** 3D printing
4. **Design and Analysis** of Automotive Powertrain engine housing and its weight reduction using SolidWorks & ANSYS
5. **Reverse Engineering** for complete design analysis for each micro part in Insulin pump, Omnispod
6. Analysis of nonlinear bending of elastoplastic material developed **FEA Algorithm** using **MATLAB & ANSYS**
7. Laplace Beltrami operation in embedded **FEM** using **MATLAB**
8. Projectile Impact and drop test simulation of the ceramic plate using **ANSYS**
9. Mold and die design for a helmet component in **SolidWorks** and **life cycle analysis**
10. Solar bot, Line following/Light following bot, **Marketing Campaign Management**.
11. **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**
12. 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**