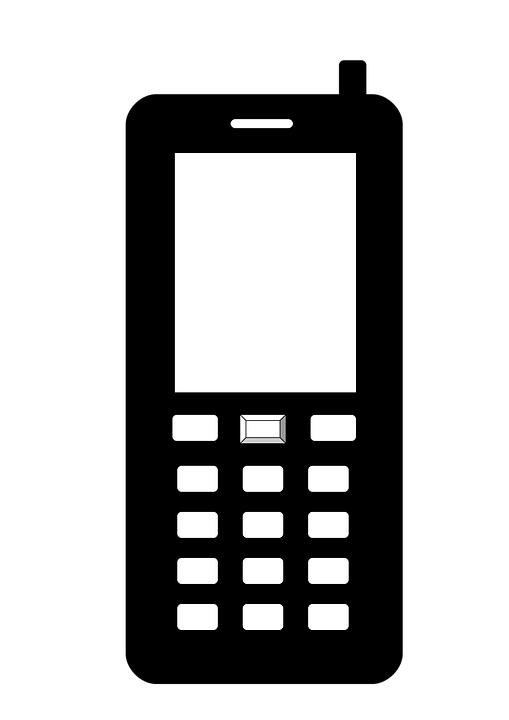
**RISHIKA JAIN**

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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 | Detail oriented & Effective Communicator |
| Quantitative Research Methods | Predictive Modeling | Quality Assurance ISO | Customer service and Client interaction |
| Production Planning and Control | Machine Learning | Lean Six Sigma | Problem solving and strategic thinking |
| Operation Research | Regression Testing | Design and analysis | Business development & Project Management |

**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, DFM, 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), Git ,GitHub

**EDUCATION:**

**Master of Engineering in Mechanical Engineering Aug 2018- Dec 2019**

Duke University Pratt School of Engineering, USA

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

Dr. A.P.J. Abdul Kalam Technical University, UP, India

**EXPERIENCE:**

**Solar Development Engineer April 2020- Present**

*Manabu foundation, Los Angeles, CA, USA*

* Entailed site control, worked with EPC firms regarding procurement and design, and consulted the team around project development.

**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 ensuring quality and consistency.

**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, editing documentations.

**Application Engineer Sept 2017- June 2018**

*Autronicals Infotech Pvt. Ltd., Delhi, India*

* Analyzed data for prospective project from students, planned and developed critical strategies for multiple project development
* Trained teams of students in software design and helped them complete projects through peer mentorship and team building.
* Led 1000+ students to provide continued education in Auto-CAD and 3D modelling techniques during workshops and skill development.

**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 six sigma model, and 5S, which resulted in improving efficiency and saved up to $10,000.00 in manufacturing costs.
* Analyzed critical data from QA testing using MS-Excel and presented it in front of the VP of the organization.
* Developed and controlled Standard Operating Procedure (SOP) for quality improvement with NIJ 44 ISO Std. of the ongoing production.
* Prepared detailed part and assembly drawings, product process documentation for release to workers, suppliers and assembly teams
* Researched and developed layout of facilities and determined its requirement in manufacturing processes and tools.
* Designed test plans and work instructions for the productions workers for the proper flow of materials and the processes.
* Estimated production costs by using MS NAV tool for inventory, logistics and enterprise resource planning (ERP)

**Design Engineer Intern April 2016 - July 2016**

*Dimi Works, Lucknow, India*

* Designed creative parts for online customers in CAD using NX and Solid works for 3D printing

**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 locomotive.
* Assisted in the investigation of issues relating to the machining processes. Inspected vehicle before dispatch through information retrieval and communication system.

**PUBLICATION:**

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

**PROJECTS:**

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| **Degradation of cutting tool and Anomaly detection, Data Analytics (Python)** | **10/2019 – 12/2019** |
| * Performed feature extraction on the dataset, extracted time and date by changing the format to datetime. * Improved the model by 52% using SARIMAX model, reduced RMSE from 144 to 68.86. | |
| **Additive Manufacturing of fuel nozzle & exhaust duct for gas turbine designed using SolidWorks** | **09/2019 – 12/2019** |
| * Used metal 3D printing SLS(Selective) along with Stereolithography and FDM(Fused Metal Deposition) 3D printing * Reduction in 75% of waste from traditional manufacturing | |
| **Analyzed Bigdata from DEA Opioid Drug analysis for mortality using Python and Tableau** | **09/2019 – 11/2019** |
| * Data Wrangling of bigdata obtained from 2 million having opioid use disorder (OUD) involving prescription opioids * Pre-post analysis with a difference-in-difference (diff-in-diff) approach trend graphs. | |
| **Reverse Engineering of electromechanical gearbox of Insulin Pump** | **07/2019 – 12/2019** |
| * Design and analysis of electromechanical assembly of the gearbox and its reverse engineering theory analysis. * Manufacturing using 3d printing and its assembly with re-iteration using NX. | |

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| **Design and Analysis of Automotive Powertrain Differential using Static Analysis** | **07/2018 – 09/2018** |
| * Differential casing and its weight reduction by using thermoplastics for economical sustainable design. * Designed the powertrain differential gearbox housing 3d model in SolidWorks. * Performed structural linear analysis on differential gear box housing in ANSYS Workbench. | |
| **ERP Marketplace Simulation Game, Supply Chain (SAP-ERP, Data Visualization, Excel)** | **03/2018 – 05/2018** |
| * Investigated trends and production cycles collaboratively with team members, monitored marketing expenses. * Participated in brainstorming sessions to develop a marketing plan and sales strategy, increased total sales by 35%. * Invested in setup time and production capacity, improved productivity by 51% and generated a revenue of $9.1M. | |
| **Manufactured an operating Go-kart in CNC programming and designing using motor-bike Engine** | **07/2016 – 09/2016** |
| * 3D Modelling of Go-kart chassis in SolidWorks and analysis of chassis using ANSYS for stress testing | |
| **Modeling of Twin Turbocharged V6 car engine in SolidWorks, Auto-Cad & analysis of piston in ANSYS** | **07/2015 – 12/2015** |