KAMAL PATEL

+1 (929)-353-1008 ● New Brunswick, NJ ● kp1057@rutgers.edu ● Linkedin ● Portfolio

PROFESSIONAL EXPERIENCE

Kismet Technologies, LLC   05/2023 - 09/2023
Industrial Engineer Intern   Orlando, FL
- Revamped data tracking process for batch manufacturing with Microsoft PowerApps, led to 11% improvement for R&D and manufacturing team.
- Authored SOPs for batch acceptance testing, implemented product recall procedures and developed production schedules.
- Generated monthly reports on inventory level and logged data in Katana MRP system.
- Performed time and motion study analysis to devise and implement process improvements, achieving an 8% reduction in production time.
- Assisted in the development and implementation of production schedules.
- Collaborated to evaluate and improve workplace ergonomics using 5S method and transported material safely using forklift.

Susha Founders and Engineers   12/2021 - 05/2022
Manufacturing Engineer Intern   Gujarat, India
- Generated and reviewed 2D/3D engineering drawings to ensure alignment with project specifications and client needs.
- Rearranged tool crib area attaining 5% space optimization, coached shop-floor worked in 5S methodology for tool accessibility and safety.
- Conducted time study for assembly processes for 2 production stages, reduced production time by 8%.
- Examined inventory data using VLOOKUPs and Pivot Tables to forecast new reorder level and EOQ.
- Maintained monthly reports of OEE, production reviews and Improvements reports.

Instahub Automation   09/2019 - 12/2019
Mechanical Design Engineer Intern   Philadelphia, PA
- Modified 20+ CAD files in Fusion 360 and Solidworks, while leading a team of two interns in prototyping retrofit multi-sensor products.
- Generated comprehensive 2D drawings via AutoCAD & SolidWorks, facilitating early project completion by 3 days.
- Conducted preventive maintenance to reduce printer downtime by 60%.
- Partnered with the engineering team to revise and develop rack and pinion mechanism prototypes using Prusa Printers to fit within the motor bracket.

Composite Material and Mechanics Laboratory - New York University   06/2019 - 08/2019
Student Researcher under Prof. Rakesh Behra   New York, NY
- Developed a 3D model of wind turbine blades using SolidWorks and executed structural and modal analysis using ANSYS.
- Annotated 20 research papers focused on residual thermal stress in metal additive manufacturing for comprehensive review paper.

EDUCATION

Rutgers, The State University of New Jersey   09/2022 - Present
Master of Science, Industrial and Systems Engineering (GPA: 3.75 / 4.0)   New Brunswick, NJ
Coursework: Production Analysis, Lean Six Sigma, Simulation of Production Systems, Data Analytics, Data Mining II, Quality Mgmt, Project Mgmt.

New York University
Master of Science, Mechanical Engineering   New York, NY

PROJECTS

Lean Six Sigma Project: CAR-T Cell Therapy Manufacturing   10/2023 - 12/2023
- Led a cross-functional team to apply the DMAIC methodology to optimize the CAR-T cell therapy manufacturing process.
- Performed Root Cause Analysis, crafted Ishikawa and FMEA diagrams, presented refined strategies to reduce patient wait time.

Home Credit Default Risk [Link] [Best Presentation Award] | *Python, AutoML*   10/2023 - 12/2023
- Preprocessed 300K loan applications dataset, addressed missing values, anomalies, and outliers through exploratory data analysis.
- Attained 74.37% AUC in the kaggle competition with LightGBM, close to the top score in the leaderboard of 79.5%.

Product Line Optimization Using Flexsim: MAREANA Turbine Manufacturer | *Flexsim* 09/2022 - 12/2022
- Performed discrete-event simulation of turbine manufacturing in Flexsim, analyzed the data in Minitab and identified bottlenecks.
- Conducted root cause analysis and proposed a new line balancing plan eliminating production time by 23.5%.

Vehicle Accidents Severity Analysis [Link] | *R, Tableau, Streamlit*   09/2022 - 12/2022
- Investigated 2.8M accidents from 2016-2022 by performing EDA and optimized models to accurately predict severity with 89.67% accuracy.
- Developed interactive visualizations in Tableau and R and built an interactive web app using Streamlit for 800K data points.

LEADERSHIP EXPERIENCE

NYU Autonomous Vehicle - Intelligent Ground Vehicle Competition   09/2017 - 07/2018
Lead Mechanical Engineer   New York, NY
- Spearheaded the design and development of an autonomous vehicle with 10 student engineers, awarded 3rd place and surpassed 70% of competitors.
- Demonstrated proficiency in assembly, wiring, and hardware setup, saved installation time by 17%.
- Utilized tools like 3D printers, laser cutting, drilling and hand/shop tools to manufacture parts as per need for vehicle modification.

CERTIFICATIONS

- SQL for Data Science [Certificate]
- Machine Learning for Supply Chain Specialization [Certificate]

SKILLS

Packages: AutoCAD 2D/3D, SolidWorks, PTC Creo,Inventor, CATIA V5, Minitab, Flexsim, ANSYS, MS Project, Excel(Pivot Tables, Macros)
Programming/Data Tools: C, MATLAB, Python, R, MySQL, PowerBI, Tableau, VBA, Access, JMP