

KAMAL PATEL

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EDUCATION

Rutgers, The State University of New Jersey Sep'22 - May'24
Masters in Industrial and Systems Engineering(GPA:3.75/4) New Brunswick
Courses: Project Management, Data Mining, Production Analysis, Lean Six Sigma, Quality Management, System Simulation, Supply Chain Engineering

EXPERIENCE

Kismet Technologies 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.
- Initiated the first production schedule for nano-surface coating product, ensured compliance with ISO 9001 standards.
- Performed time and motion study analysis to devise and implement process improvements, achieving an 8% reduction in production time.
- Generated monthly reports on inventory level and integrated Katana MRP software.
- Collaborated to evaluate and improve workplace ergonomics using the 5S method and operated forklift to transport materials in the warehouse.

Mareana: Industry Collaboration Project 11/2022 - 12/2022
Project Head New Brunswick

- Performed discrete-event simulation for 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%.

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.
- Supported facility team with layout, development and PFMEA documentation to improve process quality.

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.

LEADERSHIP

Office of Disability Services - Rutgers University 02/2023 - Present

- Streamline processes and improve the efficiency of accommodation delivery for students with disabilities and provide proctoring services.

Lead Mechanical Engineer - NYU Autonomous Vehicle 09/2017 - 07/2019

- Spearheaded the design and development of an autonomous vehicle with 10 student engineers, awarded 3rd place at IGVC'18 Competition.
- Led procurement and sponsorship acquisition and demonstrated proficiency in assembly, wiring, and hardware setup, saved installation time by 17%.
- Designed CAD models and manufactured electronics housing parts in MakerSpace with 3D printers, laser cutting, drilling and hand/shop tools.

PROJECTS

Process Improvement of Cell Therapy Manufacturing 10/2023 - 12/2023

- Directed a cross-functional team of 4 members to apply the DMAIC methodology to optimize the CAR-T cell manufacturing process.
- Analyzed root causes, created Ishikawa and FMEA diagrams, and presented strategies, resulting in a 15% reduction in patient wait time.

Loan Default Risk Prediction - [Link](#) [Best Presentation Award] 10/2023 - 12/2023

- Preprocessed 300K loan applications dataset, addressed missing values, anomalies, and outliers through exploratory data analysis in python.
- Built multiple ML models, achieved a leading AUC score of 74.37% with LightGBM, nearing the top-performing score of 79.5% on Kaggle.

Vehicle Accidents Severity Analysis - [Link](#) 09/2022 - 12/2022

- Investigated 2.8M US accidents from 2016-2022, performed EDA and built ML models to accurately predict severity with 89.67% accuracy in R.
- Developed interactive visualizations in Tableau and built an interactive web app using Streamlit for 800K data points.

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

CERTIFICATIONS

- Machine Learning for Supply Chain
- SQL for Data Science