KAMAL PATEL

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EDUCATION

Rutgers, The State University of New Jersey • New Jersey *August 2022 – May 2024*
Master of Science, Industrial & Systems Engineering *GPA : 3.78/4.0*
Relevant Courses: Data Mining II; Systems Data Analytics; Production Analysis; Project Management; Lean Six Sigma, Quality Management; Supply Chain Engineering, Simulation of Production Systems.
Certification/Affiliation: Lean Six Sigma Green Belt, Institute of Industrial and Systems Engineers – Rutgers Chapter

SKILLS

Process Improvement	Kaizen, 5S, Six Sigma, SPC, Value Stream Mapping, Poke-Yoke, Continuous Improvement
Software Proficiency	AutoCAD, Flexsim, SolidWorks, PTC Creo, ANSYS, MS Project, Visio
Data Analysis / Engineering	R, Tableau, SQL, Matplotlib, Minitab, GCP, SPSS, Minitab
Tools and Frameworks	Python(Pandas, NumPy, Scikit-learn, PyTorch), MATLAB (SimEvents, deep learning toolbox)

WORK EXPERIENCE

Kismet Technologies *May 2023 – August 2023*
Industrial Engineer Intern
- Revamped batch manufacturing data tracking with PowerApps, boosting R&D efficiency by 11%.
- Authored SOPs for batch acceptance testing, implemented product recall procedures and developed production schedules.
- Initiated the first production schedule for nano-surface coating , ensured compliance with ISO 9001 and quality standards.
- Integrated Katana MRP software for inventory management and generated monthly operational reports.

Mareana: Industry Collaboration Project *Nov 2022 – Dec 2022*
Project Head
- Coordinated and managed a team of 4 engineers, ensuring clear communication and task delegation to meet project deadlines.
- Analyzed simulation data in Minitab to identify production bottlenecks and inefficiencies, utilizing statistical tools to drive decision-making.
- Evaluated and performed FlexSim simulation, identified bottlenecks, optimized line balancing, reducing production time by 23.5%.

Susha Founders and Engineers *Dec 2021 – May 2022*
Manufacturing Engineer Intern
- 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.
- Enforced 5S principle for tool accessibility and safety, rearranged tool crib for space optimization increasing productivity by 10%.

ACADEMIC PROJECTS

Process Improvement of Cell Therapy Manufacturing *Oct 2023 –Dec 2023*
- Directed a cross-functional team of four to apply the DMAIC methodology to optimize the CAR-T cell manufacturing process.
- Analyzed root causes, created Ishikawa and FMEA diagrams, and presented strategies in reducing patient wait time.

Loan Default Risk Prediction – Best Presentation Award *Oct 2023 –Dec 2023*
- Preprocessed 300K loan applications, addressing missing values, anomalies, and outliers using python exploratory data analysis.
- Built multiple ML models, achieved best leading AUC score of 74.37% with LightGBM, nearing the top-performing score of 79.5% on kaggle competition.

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

LEADERSHIP

Office of Disability Services - Rutgers University *Feb 2023 - May 2024*
- Streamline processes and improve the efficiency of accommodation delivery for students with disabilities and provide proctoring services.

Lead Mechanical Engineer - NYU Autonomous Vehicle *Sep 2017 - July 2019*
- Led a team of 10 engineers in the design and development of a self-driving vehicle, achieving 3rd place at the IGVC'18 Competition.
- Led the procurement and sponsorship team, demonstrated proficiency in assembly, wiring, and hardware setup, which resulted in a 17% reduction in installation time.
- Designed CAD models for sensor mounts, electronics housings, and structural supports of a self-driving vehicle. Prototyped with 3D printers and manufactured parts using hand/shop tools, drilling, laser cutting and welding.