KAMAL PATEL

+1 (929)-353-1008 | kp1057@rutgers.edu | linkedin.com/in/kamalpatel | Portfolio

SUMMARY

Analytical and detail-oriented Industrial Engineering masters student seeking an internship or Co-Op as a Data Analyst/Industrial Engineer. Strong analysis skills, proficient in diverse tools and skilled in mechanical work with great communication and problem-solving capabilities.

PROFESSIONAL EXPERIENCE

Kismet Technologies, LLC May 2023 - August 2023
Industrial Engineer Intern Orlando, FL

- Redesigned data tracking processes for batch records, leading to an 11% increase in record tracking accuracy through the development and implementation of a PowerApps application.
- Applied time and motion study analysis to devise and implement process improvements, achieving an 8% reduction in production time.
- Authored Standard Operating Procedures for batch acceptance testing and established product recall procedures.

Susha Founders and Engineers Dec 2021 - May 2022
Manufacturing Engineer Intern Gujarat, India

- Performed meticulous review of 2D/3D engineering drawings to ensure alignment with project specifications and client needs.
- Streamlined the tool crib area using 5S methodology, enhancing tool accessibility by 17% and decreasing production downtime by 12%
- Improved assembly processes through comprehensive examination and fastening of parts, resulting in a 10% reduction in assembly time.
- Maintained records and logs of work done using department service desk tool on installation, modification, and repairs.
- Supported facility engineering team with layout and development program documentation, PFMEA to improve process quality.

Instahub Automation Sep 2019 - Dec 2019
Mechanical Design Engineer Intern Philadelphia, PA

- Enhanced design efficiency by 10% through optimization, modification of CAD files, and integration of product specifications.
- Generated comprehensive 2D drawings via AutoCAD & SolidWorks, facilitating early project completion by five days.
- Partnered with engineering team to revise and develop intricate 3D mechanical prototypes, resulting in a 20% improvement in product durability and an 8% cost reduction.

NYU Composite Material and Mechanics Laboratory June 2019 - Aug 2019
Graduate Researcher New York, NY

- Explored methods to enhance the structural health monitoring system for wind turbine blades using fiber-optic sensor technology.
- Developed a 3D model for wind turbine blades using SolidWorks and executed structural and modal analysis using ANSYS, contributing to deeper understanding of blade performance and durability.
- Contributed to academic discourse by annotating 20 research papers focused on residual thermal stress in metal additive manufacturing, aiding in the production of a comprehensive review paper.

SKILLS

Packages: CAD (SolidWorks (Drawing, GD&T), CATIA V5, PTC Creo, AutoCAD), Minitab, Flexsim, ANSYS(Mechanical, Fluent), MS Project
Development tools: Python, R, MATLAB. **Data Tools:** Tableau, PostgreSQL, Dockers, Scikit-learn.

PROJECTS [Portfolio Link]

Home Credit Default Risk [Link] Oct 2023 - Dec 2023

- Cleaned and processed 300K loan application dataset from Kaggle, handled missing, anomalies and outliers in data by performing EDA.
- Implemented Random Forest, XGBoost and Light GBM models, achieving AUC-ROC of 74.37% for classification.

Building Energy Consumption Analysis [Link] May 2023 - Jun 2023

- Accelerated data analysis, cleaning, pre-processing, and feature engineering on 10K data points.
- Implementing K-Means Clustering and k-neighbor regression for daily load profiles, achieving MAPE of 6.59%.

US Vehicle Accidents Analysis [Link] Sept 2022 - Dec 2022

- Analyzed 2.8M accidents from year 2016-2022 by performing EDA and optimized models to accurately predict severity with 89.67% accuracy.
- Developed interactive visualizations using Tableau and R and created an interactive web app with Streamlit for 800K data points.

Mareana AI: Factory Flow Simulation Sept 2022 - Dec 2022

- Simulated flow in Flexsim, identified bottlenecks, conducted RCA, and proposed a new line balancing plan eliminating production time by 23.5%.
- Introduced a new product into the existing product flow, resulting in an additional $400K revenue to compensate for lost sales.

LEADERSHIP EXPERIENCE

NYU Autonomous Vehicle - Intelligent Ground Vehicle Competition'18 Sept 2017 - July 2018
Lead Mechanical Engineer New York, NY

- Lead a team of 10 engineers and collaboratively designed an autonomous vehicle and won 3rd place out 10 teams in self-drive category.
- Executed an efficient procurement process in collaboration with procurement team, resulting in 25% cost savings and securing $5K sponsorships.
- Interpreted complex automotive wiring schematics before assembling the vehicle hardware, saving over 20% of installation time.
- Collected product test data and created concise project reports, significantly enhancing interpretation accuracy.

EDUCATION

Rutgers, The State University of New Jersey May 2024
Master of Science, Industrial and Systems Engineering (GPA: 3.75 / 4.0) New Brunswick, NJ
Coursework: Data Analytics in R, Data Mining II, Six Sigma & Lean Mfg., Production Analysis, Quality Mgmt., Supply Chain Engr, Project Mgmt.

New York University
Master of Science, Mechanical Engineering New York, NY
Course: Applied Mathematics, Mechanics of Materials, Robot Perception, Network Robotics, Optimal Control Robotics, Thermal Eng, HVAC Systems

CERTIFICATIONS

- Data Science for Agile Supply Chain [Certificate]
- SQL for Data Science [Certificate]