SANKETKUMAR PATEL

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EDUCATION

Master of Science, Data Science — *Jan 2023 - Present*
Illinois Institute of technology — GPA: 3.85
Bachelor of Technology, Mechanical engineering — *Aug 2015 - Jun 2019*
Pandit Deendayal Petroleum University — GPA: 3.88

COURSES

Master Level Courses
Probability and Statistics, Applied statistics, Monte-Carlo methods in Finance, Statistical learning, Time series, Data Preparation and Analysis, Big DATA, Machine learning, Database Organization, Public engagement for Scientist

SKILLS

Programming Languages & Softwares: Python, R, SQL, PowerBI, Hadoop, Apache Spark, AWS, MATLAB, Java
Productivity Tools: Microsoft Office, Google Suite

PROJECTS

Exploring Performance and Efficiency in the CTA System: A Data-Driven and Geospatial Analysis of Routes, Stations, and Services in R. *May 2023 - Jul 2023*

- Conducted analysis of Chicago Transit Authority (CTA) system, identified busiest routes and stations, analyzed ridership load changes on different stations, and detected service delays.
- Extracted insights on High Ridership in Loop, Airport, and other stations, Impact of COVID-19 on Ridership, Post-COVID Recovery, and Seasonal Variation in Ridership.
- Through API, utilized real-time data to Develop a data-driven approach to identify average travel wait times.
- Preprocessed and cleaned datasets with imputation and outlier detection techniques utilizing concepts of applied statistics, ensuring data consistency in Rstudio.
- Deployed geospatial analysis using Leaflet package in R, providing user-friendly visualizations of station locations and ridership data.
- Utilized regression models, including simple linear and polynomial regression, to evaluate ridership trends and identify peak days, informing strategies for system efficiency.

Detecting Anomalies in Banking Data Implementing Big Data and Machine Learning Systems: Apache Spark / SparkR *Aug 2023 - Dec 2023*

- Implemented credit card fraud detection system utilizing Apache Spark's distributed computing capabilities, deploying machine learning models such as Logistic Regression, Decision Tree Classifier, and Random Forest Classifier in Rstudio.
- Employed SparkR to enhance the efficiency of processing massive banking datasets.
- Applied advanced statistical techniques, specifically Principal Component Analysis (PCA), for in-depth analysis.

EXPERIENCE

Senior Engineer, ISGEC HITACHI ZOSEN LTD — *Jun 2019 - Nov 2022*

- Designed and gained approvals for critical equipment, including Ammonia converted shell, CCR reactor, and others, ensuring compliance with ASME standards.
- Implemented Python programs for mechanical strength calculations, reducing manual effort by 70%.
- Developed a MATLAB program for crack detection and weld length measurement, achieving an 80% efficiency.
- Leveraged SQL to manage and view data from the SAP, Analyzed and optimized progress in 20+ projects, enhancing manufacturing and material procurement efficiency; presented findings to company officials.

Research Intern, R&D Centre, Ceat Tyres Limited, Halol, IN — *Jan 2019 - May 2019*

- Applied Design of Experiments (DoE) techniques to analyze the impact of tread pattern changes on tire noise, developing instrumentation fixtures and testing procedures for accurate noise capture in an Indoor NVH testing facility; utilized regression and main effects analysis to devise design strategies for noise reduction, now implemented in tire development at Ceat Tyres, India, showcasing strong data science and analytical skills.

EXTRA-CURRICULAR ACTIVITIES

Co-founder & Lead of Design and Analysis team, ATV, E-BAJA SAE INDIA. *Feb 2016 - Jan 2019*

- Co-founded team Sovereign in university to build an Electric all-terrain Vehicle (E-ATV) to participate in various competitions.
- Developed the design and analyzed whole E-ATV following SAE-India guidelines. and also Managed team funds, and secured sponsorships worth $20k, overseeing material procurement and fabrication outsourcing.