Manabendra Rout

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SKILLS

PROGRAMMING
Python 3 • R • VBA • HTML
CSS

MACHINE LEARNING
Regression • Classification • NLP
CV • Clustering • Process Mining
Anomaly Detection • DNN

PACKAGES
Pandas • Numpy • Scipy
Scikit-learn • Tensorflow • NLTK
Spacy • Transformers • OpenCV
Matplotlib • Seaborn • Plotly

DATABASE / ETL
MongoDB • MySQL • Hadoop
Spark • HIVE • HBase
Sqoop • Crontab • Airflow

GUI
Flask • Django • Dash
PyQT5 • Tkinter • Shiny

BI TOOLS
MS Power BI • Tableu

LINKS

Portfolio:// **mrout94.github.io**
Github:// **mrout94**
LinkedIn:// **manabendrarout**
Kaggle:// **manabendrarout**

EDUCATION

NIT ROURKELA
B. Tech in Mechanical Engineering
Grad. May 2016 | Odisha, India
Cum. GPA: 8.08 / 10

ODM PUBLIC SCHOOL
AISSCE in Science
Grad. May 2012 | Odisha, India
Percentage: 89.2%

ODM PUBLIC SCHOOL
AISSE
Grad. May 2010 | Odisha, India
Cum. GPA: 9.2 / 10

EXPERIENCE

UNITEDHEALTH GROUP (OPTUMRX) | Assc. Data Scientist
September 2020 – Present | Noida, India

- Developed a deep learning model to extract performance parameters using NLP and CV simultaneously to detect and extract tabular data from scanned legal contracts. Reduced manual effort by 100% and time by 90%.
- Developed a predictive model to predict the end-state of an order using step wise historical data. Achieved 0.82 F1 score in production environment.
- Worked on the Process Mining team in building a dashboard to identify actual processes flow from data-logs, provide insights to optimize process life-cycle and predict upcoming process deviations/delays.
- Topic modelling using NLP on order cancellations comments to discover actionable areas and reduce further cancellations.

BAJAJ AUTO LTD. | Assistant Manager, R&D Division
July 2016 – September 2020 | Pune, India

- Using Quantitative as well as Statistical models to predict Durability and Dynamic behaviour of Engine components for motorcycles.

ML:-

- Developed a statistical model using GBM to predict bearing frictional loss based on some basic geometrical dimensions and usage which reduced turnaround time by 12%. Deployed across whole research division.
- Developed an end-to-end internal tool using DNN to predict strength of ferrous materials using their material composition (numerical data) and manufacturing methods (categorical data). Deployed and running as a web-service on local network.
- Created various internal tools based on Data driven Statistical models using ML to solve design and quality issues specific to components.
- Developed a Statistical model using the logged data to suggest important strategic decision and optimization of available resources.

Visualization/GUI:-

- Developed a robust data Ingestion, Processing and Visualization framework using Python, Plotly and Flask.
- Increased resource management efficiency by 35% by developing a PyQT5 based GUI for Queue management tool to track and assign license tokens to users based on requests and task priority. This also employed a MongoDB based database to record user requests, frequency, workload pattern, etc.

RPA:-

- Accomplished 90% reduction in time and 20% improved accuracy by developing a web-framework for test-data handling, processing and storing in an MongoDB database automatically. Framework was up & running in production server.

TATA MOTORS | Summer Intern
May 2015 – July 2015 | Jamshedpur, India

- Anomaly detection, source identification for large scale torque variations among all production Cargo-Truck engines.
- Key process parameters identification and ranking based on output correlation.
- Achieved 35.7% reduction of variation band after implementation of suggested modifications on process parameters.