MOTILAL MEHER

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EDUCATION

M.Tech in Industrial and Management Engineering (CGPA 8.67, Rank 4/25)   **IIT Kanpur (2018-20)**
- **Mr. & Mrs. S.N. Mittal Gold Medal** for **best all round performance** in academics and extra-curricular, IIT Kanpur.
- **Student senate Y18** (2019-20) Vision: Better incorporation of the voice of the PG student in the Gymkhana.
- **Awarded A*** in Probability and Statistics (IME 602) for outstanding performance.

B.Tech in Mechanical Engineering (CGPA 8.45, Rank 2/80)   **PMEC, Berhampur (2013-17)**
- Awarded by Head of Department for **best all rounding performance**.
- Secured **99.01** percentile in GATE-2018(Mechanical) among 200000 students.

Class XII (CHSE, Odisha): 82.5% | Class X (BSE, Odisha): 87.16%

WORK EXPERIENCE

Commodity Price Forecasting for one of the India's leading beverage alcohol firm, Deloitte India| Python, GCP, Apache Beam
- Built an **Intelligent Buying Platform** in partnership with **google cloud**, to forecast the price index of commodity (broken rice) for next 3 months in order to determine the optimum procurement and inventory schedule.
- **Identify relevant price impacting factors** and plug the data in **pre-defined templates.**
- Preprocess the data and build exhaustive set of features like **lag, logs, ratios and difference of the variables** and forecast the independent variables using models like ARIMAX, UCM, Holt Winters method, Moving Average Method.
- Selected variables by considering different **tree based variable Importance score and vif.**
- Build the multivariate time series model like **ARIMAX, UCM** to predict price index and evaluate model on **out of time data** using **Accuracy and MAPE.**
- Automated the data ingestion pipeline and schedule the monthly forecasting using **GCP dataflow, cloud function, cloud scheduler** and **compute engine**. Also sed **GCP Bigquery tables** for data warehouse and **google data studio** for dashboard creation.

Customer Inactivity Prediction for prepaid users for one of the leading Telecom firm, Deloitte India | Python, GCP, Kubeflow, Gita lab
- Develop a predictive model to identify prepaid subscribers at risk of becoming inactive to minimize customer churn.
- Using MlOps practice and tools to deploy, manage, and monitor ML models in real-world production.

Data Science:
- Analyze the subscribers to identify the potential segment and define observation and prediction window size.
- Preprocess the data and using variables related to revenue, first and last usages, voice, handset created exhaustive set of features
- Using decile wise event rate values selected the feature and build classification model on them.
- Using KS statistics, Gain and Lift Identify the threshold and precision objective metrices to tune different classification model like logistic regression, random forest and xgboost model and validate different model on out of time data using precision.

MLOps:
- Used Gitlab to **versioning the source code** for different component of pipelines: Data extraction, validation, preparation, model training, model evaluation, model testing.
- Used **Gitlab CI/CD pipeline** to continuously package different component to **build docker images** and **deploy the training and prediction pipelines** to the target environment (training on GCP, prediction on premise).
- Using **GCP AI platform pipeline/Kubeflow orchestrate ML pipeline** for continuous training and automatically delivered the trained model stored in the model registry for on premise inactivity prediction.
- Automatically **monitor the model performance** and detect **data drift** and present the key metrices on dashboard.
- Used google **cloud storage, google container registry** for **versioning data, model artifacts and docker images**.

INTERNSHIP

Business Analyst, Mphasis Next-lab (2019) | Python, Open CV, Image processing

Process Flow analyser (Convert Image of Process map to industry standard XML code using Image processing techniques) | Python
- Identify the Cross-functionalities (Leverage **morphological operations** with the creation of **custom kernels**).
- Localize and classify the symbols (Leverage **contour properties** and **contour Hierarchy**).
- Localize the **arrows, identify the extreme end** and classify them (Leverage contour properties), **identify sequences of symbols** (**adjacency matrix** to represent directed sequence among Nodes).
- Visualization of directed graph from adjacency matrix using NetworkX python package.
- Create and parse an BPMN 2.0 XML documents using xml.etree.cElementTree python packages.

COURSES AND TECHNICAL SKILLS

- Courses: Statistical modelling, Machine Learning, Probability and statistics, Statistical Inference, Operation research, Stochastics calculus, Econometrics, Time series analysis.
- Programming language: Python, R, SQL, Excel, Java
- Cloud and ML Ops tools/practices: GCP (AI Platform, Kubeflow pipeline, Dataflow, Bigquery, Cloud build , Cloud function), Gita Lab CI/CD pipeline, Docker, Containerization, Version control, Kubeflow pipeline

EXTRACURRICULAR ACHIEVEMENTS

- Finished First in High jump at school level (2004, 05, 06, 07) and in zonal level (05, 06, 07), JOSH-19(intra IITK).
- IITK Hall8 Cricket: Enthusia 2k18 winner, Josh 2018 runner up and Josh 2019 winner.
- Completed Pin Parvati trek (Altitude 17,500 Ft), Sandakphu trek (Altitude 12,000 Ft).
- Finalist in Flipkart Grid Machine Learning quiz, IITK.
- Finalist in Analytics Case Study Competition & Symposium event during Prabandhan'18 IIT KANPUR.