Ajay Nehra

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Data Science Consultant with 8+ years of experience in development and deployment of data driven solutions/products with expertise in CPG, Payment and Banking industry. Highly skilled in R, Python and Julia for model development and evaluation, PySpark and SQL for data ETL pipelines. Experienced in working with CI & CD tools like Gitlab and Jenkins

EDUCATION

B.Tech in Civil Engineering, IIT Kanpur	*7.1/10*	**Jul 10-May 14**

WORK EXPERIENCE

SPECIALIST, DATA SCIENCE   *MCKINSEY & COMPNAY*   *Nov19-Present*

- Optimized price and margin management strategies for CPG clients using econometrics and ML models
- Responsible for scoping and transforming complex business problems into actionable mathematical models
- Led the initiative to develop a scalable pricing and promo solutions product to be used across clients and geographies using Mixed Models. Solution recommends optimum price and ideal promo strategy at SKU level
- Led the client communication to introduce machine learning algorithms, tools and solution deployment process

SENIOR CONSULTANT   *ERNST & YOUNG (DUBAI)*   *Oct 17-May-19*

- Developed credit risk scorecards using Logistic regression for major banks in UAE, Qatar, Kuwait and India
- Led a 3 member EY team to validate existing credit risk models for corporate and retail portfolios for banks
- Designed and implemented stress testing modules for banks to measure Basel Pillar 1 and Pillar 2 risks
- Devised methodologies using time series forecasting in R to convert TTC PDs into PIT PDs
- Designed a Standalone **ECL calculator** in **R** and **Shiny** by modelling key ECL components **PD, LGD and EAD**
- Recalibrated the corporate rating scale to new Central Tendency (CT) of default using logarithm transformation
- Developed **a propensity model using Neural Networks** to quantify EY's attrition rate by utilizing HR database

ASSOCIATE CONSULTANT   *MASTERCARD ADVISORS*   *Jan 16-Jun 17*

- Created a customer acquisition strategy for merchants using k-means clustering on Mastercard's transaction data
- Developed a portfolio optimizer for the banks by creating spend based clusters using Mastercard's internal transaction level data |Estimated the potential spend value and then benchmarked it against current spend value
- Developed a classifier in R using multinomial Logistic regression to drive propensity scores for all the products

- ❏ Proposed a **dynamic pricing model** for digital hoardings, model takes into input the nearby traffic data and the profile of the customers and allows the merchants to bid for advertisement

*** This solution was awarded most innovative solution in the Mastercard Innovation forum*

BUSINESS ANALYST   *FRACTAL ANALYTICS*   *Nov 14-Dec 15*

- Developed a **Marketing Mix Model (MMM)** using log linear regression on sales and marketing data to measure ROI of media channels and recommended product specific media channels to devise optimization in marketing strategy
- Build **pricing models** for region level promoted product groups (**PPGs)** and recommended optimized pricing and discount strategy using the price and discount elasticities obtained from the model results

TECHNICAL SKILLS

Programming Languages	**R, Python**, PySpark and Hadoop, C, MATLAB, **Hive**, SAS, **SQL,** VBA, HTML
Supervised ML Techniques	**Linear and Logistic Regression**, Random Forest & XGBoost, **Mixed Models**
Unsupervised ML Techniques	*K*-mean and hierarchical clustering, **Principal component Analysis**
Statistics	Sampling, Hypothesis testing, ANOVA, Probability distributions, Bayesian Analysis

SCHOLASTIC ACHIEVEMENTS

- Secured All India Rank **1771 (**percentile: **99.61) in JEE** 2010 and All India Rank **2574** (percentile **99.76)** in AIEEE 2010
- Recipient of Merit-cum-Means **(MCM) Scholarship at IIT** providing full waiver in course fees and monthly stipend
- Won **2 H.E.A.R.T** "Highlighting Excellence and Recognizing teamwork" awards at **Mastercard Advisors**
- Filed **6 patents** on behalf of **Mastercard Advisors** in future payments methods and banks & merchant solutions