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| **Ramanathan**  **Statistical Modelling**  **Data Science**  **AI/ML** | |  | [rm.ramanathan@gmail.com](mailto:rm.ramanathan@gmail.com)  +91-95385-66699  B.Sc. Statistics (1999, 72%)  MBA Finance (2001, 62%) |
| **Executive Summary**   * Data Evangelist who is **obsessed with data** and believes good mix of transformations and of techniques on data will answer all right questions * Have processed data to the tune of **100 million records** building data pipelines end to end such that information retrieval is quick and handy * Modelled customer behaviour and **predicted high value customer** early in life cycle with ensemble of tree-based models and regression models * **Segmented customers** to tailor offer in retail setups. Have also applied clustering for varied applications * Rich experience working in **time series data** solving problems in forecasting demand, inventory planning, mark-down pricing * Built data teams from scratch, played **mentor role** for each of team member and have been responsible for analytics deliveries owning from data acquisition/ingestion, feature engineering and presenting top line findings * Interacted with business **stakeholder** in formulating the business requirement that can be met with data backed intelligence * Expert in devising logical approach to problem solving and **handy with statistical techniques** * **Actively coding** in Python(scikit-learn, tensorflow), R, Scala, SQL, Spark, Hive * Comfortable with **Linux OS** in private/public Cloud set up and Git * Have executed **Deep Learning** project that predicts water level in paddy field from images * Supervised a **NLP text classification** project that uses Deep Learning * Skilled in managing **end-to-end ML projects** from requirement gathering, formulation, planning, scheduling, execution and deployment in production * Mature, composed & trusted technology leader, with thorough experience in adapting technology expertise to business vision | | | |
| |  | | --- | | **Reliance Jio** | | **Bangalore** | | **Lead Data Scientist** | | **Mar 2018 - March 2019** | | **Ad Targeting with Association Rule Mining**   * Built a Recommendation system that targets subscribers identified in 100 interest categories * The algorithms used are **collaborative filter – subscriber based/interest based** and **matrix factorization**   **Subscriber Interest Tagging from browsing behaviour**   * Identified Subscriber preferences, for the purpose of targeting, from the pages they browse using **NLP – Topic Modelling** * Predicted subscriber current interest in near real time with **CNN** in **PyTorch. Acc 75%**   **Gender and Age Prediction**   * Built a **FC ANN** model to discover behavioural Gender and Age of the subscriber using the subscribers’ recent activity recorded in the system * This furthered in targeting right audience by **25%**   **Influence Score**   * Influenced the subscriber response to ad with the help of his/her social network(Family/Profession/Interest group) * Mentored the team to use **Spark GraphX** and derive influence score of each individual on others in the network   **Home Location Prediction**   * Labelled Tower as Residential/CBD/Rural/Highway etc with **K-Means(using MLLIB) Clustered** traffic in each of tower split by hour * Collaborated with tower teams to rightly identify towers * This created new segments for targeting | | |
| |  |  | | --- | --- | | **Gale Partners** |  | | **Bangalore** | | | **Sr. Associate - Analytics** | | | **May 2015 - March 2017** | |   **Client: Leading Resort in Malaysia** | **Big Data Pipeline**   * Built **Data Pipeline** using **Spark Scala** to move datafrom **AWS S3** to **Hive** * Mentored the team migrate the Data Pipeline to **Pentaho**   **Customer Segmentation**   * Reduced the heterogeneity in customers by grouping them into 25 segments based on **RFV** using **K-Means Cluster(using R)** * Built a system that accounts for latest data and appropriates each customer to a segment * Accelerated customers migrate to high value segment deriving probability of migration using **Markov model**   **Customers Classification**   * Identified high value customers early in life cycle with classification algorithms **Decision Tree/Logistic Regression ensemble classification model** with accuracy of 85% accuracy | | |
| |  |  | | --- | --- | | **Target Corporation India** |  | | **Bangalore** | | | **Team Lead** | | | **May 2011 - May 2015** | | | **Hypotheses Testing**   * Pharmacy Buyers’ high value decision hypotheses are **statistically validated** with carefully curated data * Experiments designed on need basis and analysed   **Pharmacy Inventory**   * **Significant Cost savings** achieved through inventory policy backed with data and unique factors that affected pharmacy drugs business   **Store Segmentation and Sales Forecasting**   * Accurately forecasted sales for store segments (hierarchical clustering) and distributing them to each store * This resulted in right inventory during seasons yielding huge cost savings   **Promotion analytics**   * Led the team that designed experiments for price reduction of generic drugs * The impact of price reduction is assessed, and **cannibalization** effect discovered leading to tweak in promotion decisions   **Assortment Optimization**   * Contributed to Assortment Optimization algorithm that was built in-house | | |
| |  |  | | --- | --- | | **Optimum Solutions** |  | | **FO Development and Support** | | | **Aug 2007 - Aug 2010** | | | **Client: Credit Suisse, London / Singapore / Pune**  1. Trader FO support  2. Managed systems that generate Risk Exposure  3. Automated and Managed **Data Pipeline** | | |
| |  |  | | --- | --- | | **Genpact** |  | | **Bangalore** | | | **Senior Consultant** | | | **Aug 2006 - Aug 2007** | |   **Client: Online Payment system market leader** | **Propensity to default**   * Built a **Logistic Regression (in SAS)** topredictdefault on payment. Inferred right probability cut-off with **ROC graph** and compared multiple models with **AUC**   **Applications Forecasting**   * Forecasted using **ARIMA** the number of applications we would receive for credit card   **Target Identification for Campaigns**   * **Designed the experiment** Based on objective of campaign * Identify Test/Control customers, publish post campaign analytics | | |
| |  |  | | --- | --- | | **Apex-Decisions.com** |  | | **Bangalore** | | | **Statistical Analyst** | | | **Apr 2004 - Feb 2006** | |   **Client: Garment retail chain** | **Price Elasticity**   * Modelled markdown that generates desired response from market using **Regression**   **SKU clustering and Sales Forecasting**   * Segregated SKU’s with **Hierarchical Clustering** * Forecasted sales as a function of **stock-on-display, price, discount, seasonality index** * Quantified the impact of various markdown scenarios on sales | | |
| |  |  | | --- | --- | | **Research Interface** |  | | **Bangalore** | | | **Research Analyst** | | | **Apr 2003 - March 2004** | |   **Client: FMCG giant** | **Market Research**   * Designed **Market Research** Experiments * **Analyse the variance** of customer responses to flagship products * provide **insights** into what data analytics reveal * 4. End to End project monitor for delivery | | |
| **Ocwen Financial Solutions Private Limited**  **Sep 2001 – Mar 2003** | **Back office Operations**   * Bankruptcy Reconciliation   Mortgage document validation | | |