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AMBIKA RANA

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EDUCATION

Hartford, CT **University of Connecticut** **Aug 2016 – Dec 2017**

- M.S. in Business Analytics and Project Management. GPA: 4.0/4.0
- Coursework: Predictive Modeling, Data Analytics with R, Data Mining and Business Intelligence, Data Science with Python, Business Decision Modeling, Project Risk and Cost Management

Hamirpur, India **National Institute of Technology** **Aug 2008 – May 2012**

- B.Tech in Electronics and Communication Engineering. GPA: 8.3/10

SKILLS AND TECHNOLOGIES

- Techniques – Exploratory Data Analysis, Hypothesis testing, Regression analysis, Random forest, Boosting, Clustering, Market Basket Analysis, Linear Optimization
- Tools – R, SQL, Python (Pandas, ScikitLearn), Tableau, SAS JMP, Informatica, UNIX, Microsoft Excel
- Certifications – Probability and Data (Coursera), Data Science with Python (Data Camp)

EMPLOYMENT

Promotion Optimization Specialist **Merck & Co. Inc.** **Jan 2018 – Present**

- Evaluated the effectiveness of samples in driving product sales by analyzing a pilot program through use of matching and modeling techniques in SAS

Promotion Optimization Intern **Merck & Co. Inc.** **Jun 2017 – Dec 2017**

- Developed panel regression model on physician sales to study promotional effectiveness of various channels
- Built a Python framework to calculate abandonment and adherence for various patient segments
- Performed hierarchical clustering using market landscape to select geographies for a promotional pilot

Associate Consultant **ZS Associates** **Nov 2013 – Jul 2016**

- Led development of a $130k self-service reporting solution on MicroStrategy enabling dynamic creation of dashboards and real-time analysis of brand performance
- Designed a scalable data management system providing day one visibility into launch trajectory of a drug
- Automated the in-house BI tool using UNIX scripting and SQL procedures to analyze dispensing data from 80 pharmacies per week, thereby saving $90k in operational cost
- Created weekly performance reports assisting sales force in profiling their top customers
- Analyzed patient journey to generate actionable insights for Client Access team providing patient support
- Designed KPIs to quantify the performance of specialty pharmacies for calculating their quarterly payouts

Software Engineer **Verizon Data Services** **Jun 2012 – Oct 2013**

- Automated billing process using ESP and CA7 tools to reduce the testing time of billing plan by 50%

ANALYTICS PROJECTS

- **Airbnb booking destination prediction** – Utilized feature engineering and boosted tree based hierarchical classification modeling to predict the booking destination of a customer with an accuracy of ~85%
- **Travelers claim prediction challenge** – Built a prediction model for claim amount using tweedie distribution and generalized linear model with a resulting Gini Index of 21.12, an improvement of 5% above the baseline
- **Analysis of patient readmission rates** – Analyzed the impact of HBA1C testing on the readmission rates of diabetic patients; obtained statistically significant results (p-value < 0.002) for patients with a primary diagnosis of diabetes and respiratory diseases
- **Non-linear regression –** Predicted the out of state tuition fee using Generalized Additive model (GAM), to illustrate its advantages over decision tree based models in interpretability, automation and regularization

ADDITIONAL EXPERIENCE AND AWARDS

- **Impact Recognition, ZS Associates** – Awarded for outstanding performance as a Technology Associate
- **Ensemble modeling challenge, Analytics Vidhya** – Ranked 4th out of 1,200 participants in an online challenge