Roshan Raj Singh

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PROFILE

Accomplished Data Science professional with 7+ years of experience with a Master's in Business Analytics. Demonstrated track record of transforming complex data into actionable insights across diverse industries, seeking Data Analyst/Scientist role.

SKILLS

- **Languages :** Python (Tensor Flow, NumPy, Pandas, SciKit-Learn, Keras, Matplotlib), SQL, R.
- **Tools and Technology :** Tableau, PowerBI, Google Cloud Platform, Hadoop, SAS EM, Advanced Excel(@Risk, Minitab).
- **Certifications:** AWS Cloud Practitioner, Tableau Desktop Specialist, Microsoft Azure Fundamentals professional.
- **Competencies**: Statistics, Predictive Analytics, Time Series Analysis, Deep Learning, Simulation, ETL, Dashboarding.

EDUCATION

Purdue University, Daniels School of Business   **West Lafayette, IN**
Master of Science in Business Analytics and Information Management(STEM)   **August 2024**

- Served as a Teaching Assistant for a graduate-level course in R programming, providing support and guidance to students.

Manipal University, Manipal Institute of Technology   **Manipal, India**
Bachelor of Technology in Civil Engineering   **May 2015**

ACADEMIC PROJECTS

- **Predicting Firm Bankruptcy with Machine Learning** – Developed an ensemble model of Neural Network and Gradient Boosting to classify bankruptcy using 64 indicators on SAS EM with 91% accuracy.
- **Cryptocurrency Price Forecasting using AI Time Series Model** – Implemented LSTM for time series model to forecast prices of crypto assets with RMSE below 0.12 by utilizing rolling window concept for higher precision.
- **Identifying High Value Spectators for NCAA** – Designed a multi class using L1 regularized logistic regression, XG Boost and Random Forest to identify ticket buying spectators for NCAA with over 98% accuracy.

PROFESSIONAL EXPERIENCE

Kearney   **West Lafayette, IN**
Data Science Intern (Capstone Course)   **Jan 2024 – Apr 2024**

- Delivered a Tableau dashboard and implemented Gradient Boosting model while consulting for a welding equipment manufacturer to forecast supplier risk scores, achieving 98.7% R-squared value and enhancing delivery performance by 40%.

EXL Service   **Gurgaon, India**
Consultant   **May 2021 – Jul 2023**

- Spearheaded development of XGBoost model to create a behavior scorecard that was used for account management activities like CLI, CLD, cross selling etc. on a credit card product for a top Hong Kong based bank resulting in credit efficiency of 7%.
- Directed comprehensive analysis for a utility firm's customer data through HIVE interface and implemented KNN classifier models, leading to decrease in churn rate from 23% to less than 10%.
- Optimized model performance by conducting hyperparameter tuning using grid search, random search, and Bayesian optimization techniques, while using metrices such as Gini, KS, PSI, and accuracy to compare and evaluate model performance.

Ugam Solutions (Merkle)   **Bangalore, India**
Business Analyst   **Aug 2019 – May 2021**

- Implemented Random Forest model with bagging and boosting techniques with 84% accuracy and 87% sensitivity to predict customer attrition.
- Identified top customer attrition factors using feature importance based on MDI(mean decrease in impurity), Permutation Importance and SHAPley values to provide actionable insights, yielding more than 10% reduction in attrition rate.
- Optimized overhead for an Australian retailer's operation by developing an R code to analyze customs, duty codes, and supplier costs – reducing overall overhead by 5%, eliminating previously untraceable wasteful spending.

TATA Consultancy Services   **Bangalore, India**
Data Analyst   **Nov 2015 – Aug 2019**

- Delivered classification models using Logistic Regression to identify credit card application fraud, reducing such instances by over 20% while consulting for a UK based banking firm.
- Recalibrated a regression model for forecasting and increasing mean time between failures of medical equipment by over 10%, significantly reducing maintenance costs for a North American medical technology firm.

LEADERSHIP ACTIVITIES, AFFILIATIONS, HONORS

- Successfully secured first place out of 88 entries at the prestigious 2024 Informs Analytics Conference poster competition.
- Recognized with Certificate of Employee Appreciation at EXL Genius Awards.
- Honored with Award of Accountability and practicing Customer First perspective by Ugam Solutions(Merkle).