Ravi Prakash

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EDUCATION

Indian Institute of Technology, Kanpur

Dual Degree (BS and MS) in Economics; GPA: 8.0/10.0

Kanpur, UP July 2012 - June 2017

Thesis: Intraday Analysis of Oil Prices and Exchange Rates Jumps Synchronicity

Relevant Coursework: Machine Learning:Tools, Techniques and Applications; Bayesian Machine Learning, Data Structures and Algorithms, Probability and Statistics, Econometrics, Applied Game Theory, Linear Algebra

SKILLS

• Languages: Python, SQL, R, C++

• Libraries: TensorFlow, PyTorch, Keras, Scikit-Learn, Numpy, Pandas, OpenCV, PIL, Plotly Dash, Matplotlib

• Technologies: GCP, AWS, GitHub, Docker

EXPERIENCE

EXL Analytics (Inductis India Pvt. Ltd.)

Gurugram, HR

Consultant 2 (Machine Learning)

Sep 2017 - Present

- Automated Renovation Plan Scheduler: Redesigning and automation of the scheduling plan of 6500 retail stores
- * Developed a scheduling model to determine the layout for various levels of retail store with optimal manpower and time mix
 - * Responsible for back-end strategy, designing and implementing business rules into data structures and solely handled the python programming end of the project
 - * Explored and applied various optimization techniques like Particle Swarm Optimization, Linear& Nonlinear optimization
 - * Formulated a heuristic algorithm to reach optimality and automated it in Excel in form of Gantt Charts for better visualization and interpretation
 - * Deployed a python package with python modules, followed best coding practices (PEP8) and version controlling, handled Python-Excel VBA integration
 - * Coordinated with on-shore team to design various constraints and controls of the tool, made continuous updates in the code structure based on the client feedback and team discussions
 - * Resultant tool reduced the renovation scheduling time to 7 minutes which earlier used to take 5 resources for 5 weekdays and helped securing a new business to my company
- o Customer Life Cycle Management: Predicting dormant status of an account to prevent banking churn
 - * Performed data preparation, and data cleaning on customers behavioral and transactions dataset via missing value imputation, outlier detection etc. in R
 - * Generated huge number of features via feature engineering, and selected most important features via feature selection for better accuracy and to control overfitting
 - * Explored upsampling, downsampling, SMOTE, different performance metrices, k-fold/stratified cross validation etc. to handle class imbalance present in the dataset
 - * Applied Logistic Regression, Random Forest, Gradient Boosting models to study the customers behavior who are going dormant
 - * Managed and responsible for a whole country level CLM report analysis, a 360 degree view of customers present in the country
 - * Performed data blending and crunching from various tables to support the visualizations using SQL Queries; written automated SAS codes for client ad hoc requests

Winjit Technologies

Bangalore, KA

Internet of Things Intern

May 2016 - June 2016

• **IoT in Dairy Industry**: Devised a Raspberry Pi based IoT gateway through local Wi-Fi based sensor network for industrial monitoring in storage silos of dairy products

PROJECTS

- Crack Defect Detection: Deployed a faster RCNN model in Docker to classify defective industry grade images Link
 - o Implemented a faster RCNN model with help of openCV to achieve a 88% classification accuracy on 250 images dataset
 - o Implemented deep CNN model and transfer learning separately, transfer learning model gained close to 90% accuracy Link
- Health Reviews Sentiment Analysis: Applied OvR Logistic Regression on Tfidf features and LSTM model to predict neutral, negative & positive sentiment of drug reviews, finally achieved a 0.48 F1 score
- Insincere Questions Classification:
 - Used Glove, Paragram & FastText word embeddings to build word features along with the statistical features
 - Applied bidirectional GRU into a LSTM with two layers of global maxpooling gave the best results
- Object Detection: Applied SVM and Random Forests to detect objects in traffic surveillance videos into separate categories

MISCELLANEOUS

- Recipient of EXL Innovation Award 2018 for outstanding innovative work for the client
- 1st place in Ensemble 2.0 (EXL wide visualization competition) by building a Dash app visualizing StatsBomb's FIFA World Cup 2018 data