# Rahul Saxena

# Data Scientist



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#### **Education**

- Coursera- Google's Machine Learning on GCP
- Udacity Deep Learning using PyTorch NanoDegree
- Machine Learning Course By Andrew Ng
- B.Tech Computer Science Engg

# Toolbox / Skills

- Languages: Python, SQL, C++
- Machine Learning: Decision Trees, SVM, NBayes, Regression, Random Forest, XGBoost
- Deep Learning: Neural Network, Convolution Network. Recurrent Neural Net, LSTM, GAN
- Libraries: OpenCV, SkLearn, imbalanced-learn, PyTorch, matplotlib, numpy, pandas, ffmpeg, haarcascade
- Others: Tableau, Git, Docker, AWS, BigQuery, GCP, PostgreSQL, MongoDB

# **Achievements**

- Secured rank 51 (top~10%) in AnalyticsVidhya's Data Science Hackathon
- Qualified Google CodeJam
- Built a COVID helpline by collaborating with 150+ doctors from USA, Europe during pandemic

# **Professional Experience**

# **Senior Data Scientist,** Affine Analytics

08/2022 - present

- Involved with the team of Data Scientists to solve Analytics Problems that our clients are facing.
- Working on Oil Wells data to find anomalies in data.
- Predicting missing data that are not captured by sensors to make it easier for client to make business decisions.

#### Data Science Consultant, Udacity Inc.

2017 - present

- Collaborated with UX team to increase on-screen time for students.
- Performed multiple A/B Tests that resulted in improvement in UX.
- Worked with over 30k+ students via Udacity's knowledge, reviews and live help portal for solving Data Science problems.

# **Independent Data Science Consulting**

2018 - 2022

- Worked on 10+ data problems by collaborating with teams of diverse skillset.
- Delivered solutions in the domain of Finance, Retail, Computer Vision, NLP etc. that helped clients to automate and increase efficiency.

# **Projects**

#### **Price Optimization of Products**

- Analyzed the data of a Burger Cafe to optimize the prices of F&B to increase the profits.
- Used Price Elasticity Demand (PED) to measure the change in consumption of a product in relation to a change in its price.
- Found insights that different products behave differently, so multiple models are needed to solve the problem.

## Music Streaming Company's Customer Churn Analysis & ML Model

- Performed EDA on Hulu OTT customer churn data to predict the churning customers for targeting customers that may churn.
- Performed preprocessing, SMOTE, and feature selection using RFE.
- Harnessed the power of different ML models like Ensembles, Decision Tree, Logistic Regression to achieve best results as AUC: 0.74 and Accuracy: 87%.

## **Loan Approval Check using AI**

- The objective was to predict applicants that should be considered for giving loans using the 110k+ records of training data.
- Performed EDA, Data Cleansing, Imputation, SMOTE to prepare data.
- Achieved AUC as 0.67 and F1Score as 0.48 with XGBoost classifier.
- Automated the whole process on windows Tasl Scheduler.

#### Landmark Classification Project using CNNs in OpenCV, PyTorch

- Used a version of Google's Landmark Recognition dataset for predicting the landmark name using Computer Vision.
- Performed image augmentation, normalization, data splitting to preprocess the dataset.
- Used Deep Learning-based pre-trained weights of ResNet50 to train the model. This helped to achieve an accuracy of over 85%.