RAHUL AGARWAL

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EDUCATION

University of Minnesota, Carlson School of Management, Minneapolis, MN
Master of Science in Business Analytics August 2022

BITS Pilani Hyderabad Campus, Hyderabad, Telangana, India
Bachelor of Engineering (Honors) – Electronics and Electrical Engineering August 2018

EXPERIENCE

Carlson Analytics Lab, Minneapolis, Minnesota September 2022 - Present
Analytics Student Consultant | *Python* | *XGBoost* | *Scikit-Learn*

- **Code Correction using NLP (**Ongoing**):** Designing an ATA correction tool for an airline company using mechanic/pilot manual logs to improve safety, reduce delays and reduce manual interventions
- **Sentiment Analysis**: Developed a classification model for a workforce optimization company utilizing 57K voice calls data with XGBoost; demonstrating value of utilizing voice features along with textual parsing
- **Patient Progression Analysis**: Used Decision Trees to explain disparities in patient progression through bone marrow transplant process of leading organ registry; identified potential points of interventions

AIDoubledot | Cognirel Technologies, Bengaluru, India December 2019 - June 2020
Machine Learning Engineer | *TensorFlow* | *Spacy* | *Flask*

- Ideated and developed Java Error Classifier for Education Platform: Coordinated with business stakeholders and engineering teams to develop an RNN based classifier, giving relevant prompts helping 50K+ students learn Java; achieved a 97% accuracy
- Knowledge Graph-Based Question Answering Bot using NLP: Prototyped scalable chatbots for businesses of multiple domains using web-scraping, semantic segmentation, and Recurrent Neural Networks

Indus Valley Partners, Noida, India June 2018 - November 2019
Associate Software Engineer - Product | *C#* | *JavaScript* | *React* | *SQL*

- Responsible for developing, improving, and maintaining the full stack of *Reconciliation Software*
- Led data migration of multiple clients (150M+ records) from different platforms (SQL, MySQL) to a single in-house SQL server for multi-tenant patch, saving storage costs of individual SQL servers for small businesses
- Leveraged structured event handling in JavaScript, multithreading in C# and query optimizations in SQL to enhance performance of rendering the reconciliations dashboard by 40%
- Led a 3-person team which designed surrogate architecture to combine repetitive month-end jobs into regular reconciliation processes, saving database space by 75% and staff effort by 34%
- Spearheaded development of an in-house monitoring tool for multi-tenant clients, streamlining monitoring of reconciliation jobs for the platform teams, using React and C#

DATA SCIENCE PROJECTS

- **Customer Transaction Prediction:** Built an ensemble model consisting of CNN and LightGBM to predict customer transactions from Kaggle competition data, matching top 50 scores with an AUC of 0.924
- **Customers Segmenting:** Presented insights into customers segments to an airline and to support membership marketing campaigns, performing exploratory analysis using K-Prototype clustering on 3M+ PNR numbers
- **Causal Inference:** Determined the causal impact of ads on number of clicks for a footwear retailer using DiD analysis; estimated an ROI of 286% of sponsored ads above organic ads

SKILLS

Techniques: Machine Learning, Hypothesis Testing, A/B Testing, Data Structures & Algorithms, Statistical Analysis, Exploratory Data Analytics, Big Data Analytics, Full Stack Development, Natural Language Processing
Tools: Python (Pandas, NumPy, Scikit-Learn, TensorFlow, XGBoost, LightGBM), R, C++, C#, SQL, JS, React, Neo4j