

# RAHUL AGARWAL

1849 S Washington Ave, Minneapolis, MN • (612)438-6724 • [agarw276@umn.edu](mailto:agarw276@umn.edu) • [LinkedIn](#) • [GitHub](#)

## EDUCATION

---

Carlson School of Management - University of Minnesota, Minneapolis, MN  
**Master of Science in Business Analytics** | CGPA: 4.0

August 2022

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

August 2018

## SKILLS

---

**Tools:** Python (Pandas, Numpy, Scikit-Learn), R, C++, C#, SQL, JS, React, Neo4j

**Techniques:** Machine Learning, Hypothesis Testing, A/B Testing, Data Structures & Algorithms, NLP, Statistical Analysis, Exploratory Data Analytics, Big Data Analytics, Full Stack Development

## 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
- **Sentiment Analysis:** Developed a classification model for a workforce optimization company utilizing 57K voice calls data with XGBoost; demonstrating value of voice features along with textual parsing
- **Customers Segmenting:** Presented insights into customers segments to an airline, supporting membership marketing campaigns, involving 3M+ PNR numbers by employing exploratory analysis using KPrototype clustering & Principal Component Analysis
- **Multivariate Linear Regression:** Researched song features such as valence, tempo and genre to quantify their impact on streaming numbers, performing multivariate linear regression analysis on 1M+ songs
- **A/B testing:** Performed test to measure the causal effect of online advertising for a video service provider, with respect to the frequency ads were played on; identified the websites with more odds of purchase
- **Difference in difference estimation:** 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
- **Propensity Score Matching:** Estimated the effect of interventions in patient progression between steps of bone marrow transplant process for transplant registry; found a 27% decrease in conversion

## EXPERIENCE

---

**AI Doubledot | Cognirel Technologies**, Bengaluru, India  
Machine Learning Engineer

December 2019 - June 2020

/ Python / Tensorflow / Spacy

- 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 business of multiple domains using web-scraping, semantic segmentation and Recurrent Neural Networks

**Indus Valley Partners**, Noida, India  
Associate Software Engineer - Product

June 2018 - November 2019

/ 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 single in-house SQL server for multi-tenant patch; saving storage costs for small business clients
- Leveraged structured event handling in Javascript, multithreading in C# and SQL query optimizations, enhancing performance of rendering the reconciliations dashboard by 40%
- Led a 3-person team which ideated surrogate architecture to combine repetitive month-end jobs into regular reconciliation process, 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#