

# Ishank Lakhmani

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## EDUCATION

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### Carnegie Mellon University, Pittsburgh, PA

Expected Graduation: Dec 2022

Master of Information Systems Management, GPA: 3.70/4

**Coursework:** Computational Data Science, Machine Learning, Statistics, Advanced Relational Database Management

### Vellore Institute of Technology, India

Graduation: May 2019

Bachelor of Technology, Computer Science, GPA: 3.69/4

**Coursework:** Data Mining, Artificial Intelligence, Data Structures and Algorithms, Object Oriented Programming

## SKILLS AND CERTIFICATIONS

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- **Programming:** Python (numpy, pandas, scikit-learn, matplotlib), R, SQL, HiveQL, PL/SQL, Java, JavaScript
- **Analytics:** Predictive modeling, Tableau, A/B Testing, Time Series Forecasting, Regression, Classification
- **Organizational:** Product Development, Project Management, Agile and Cross-functional Team Collaboration
- **Statistical Learning:** Stanford University **Sep 2021 – Nov 2021**
- **Data Scientist's Toolbox:** Coursera: Johns Hopkins University **Jan 2019 – Apr 2019**

## EXPERIENCE

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### Graduate Research Assistant, School of Computer Science, Carnegie Mellon University

Dec 2021 – Present

- Extracted and cleaned more than 40 million student records to perform exploratory and summative data analysis.
- Improved overall class performance by 19% by identifying behavioral patterns among low-scoring students using statistical analysis and classifying them using XGBoost.

### Data Scientist, Tata Consultancy Services, India

Jul 2019 – Aug 2021

- Created Sqoop jobs to import over 200 million records from RDBMS to Hadoop - Hive for shorter query runtime.
- Increased client product sales by 26% by developing a Spend Analysis model and Recommender System in Python to analyze and predict customer spend categories using Random Forest Text Classifier.
- Reduced bad debt for banks by 22% by building a Probability to Default model using Logistic Regression to study over 100 million records and predict customer credit risk.
- Presented results of models to TCS Financial Solutions global head and also delivered a value proposition to the client.

### Data Analyst Intern, Tata Consultancy Services, India

Jan 2019 – Mar 2019

- Developed Merchant-analytics model using RFM analysis to identify merchant accounts and analyze their seasonalities.
- Reduced merchant churn by 32% using Time Series Analysis (exponential smoothing and ARIMA) in R to forecast merchant seasonalities and trends for banks to apply retention strategies on them.
- Measured error of the model using Root Mean Square Error (RMSE) and Mean Absolute Percentage Error (MAPE).

## ACADEMIC PROJECTS

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### Credit Card Fraud Detection

Jan 2018 – May 2018

- Performed Exploratory Data Analysis (EDA) and utilized Random Forest and Support Vector Machine (SVM) to classify fraudulent credit card transactions from data of more than 200K users.
- Achieved error rate of 21% using Random forest and 14% using SVM using Confusion Matrix.

### Sentiment Analysis to Track Criminal Activities

Jul 2017 – Nov 2017

- Scraped 1.5 million Tweets from different cities and tracked different types of crimes in those cities.
- Cleaned and analyzed the Twitter data and utilized Naive Bayes algorithm to classify the data into different criminal activities, with a motivation to reduce the city crime rate.

## ACHIEVEMENTS AND LEADERSHIP

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### Vice President - External Relations, Heinz Analytics Club, Carnegie Mellon University

Dec 2021 - Present

### Hi Talent Performer, Tata Consultancy Services, India

Nov 2020

### Educator and Mentor, Make A Difference (MAD), India

Mar 2016 – Feb 2018