# VARUN KAUSIKA

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#### **EDUCATION**

### The University of Texas at Austin

May 2023

Master of Science, Business Analytics [GPA: 3.82/4.0]

• Relevant Coursework: Predictive Modeling, Optimization, Information Management

# National Institute of Technology, Tiruchirappalli

May 2022

Bachelor of Technology, Chemical Engineering, Minor in Computer Applications [GPA: 8.7/10.0]

• Relevant Coursework: Calculus, Statistics, Linear Algebra, Database Management Systems

# EXPERIENCE

**Dell –** Data Science Capstone Intern, Austin, Texas

January 2023 - Present

Capacity Planning - Working as a part of the Customer Financial Services team to dynamically optimize levers such as
team meeting hours, outages and overtime hours to match 26 week forecasted order volumes against agents and
resources required to improve operational efficiency and semiannual staffing.

#### FedEx - Robotics Process Automation Intern, Mumbai, Maharashtra

June 2021 - October 2021

- Web scraping automation Developed an algorithm to scrape dropdown bars, tables, and text boxes of any given website. Generated a spreadsheet view of data using Selenium and Pandas. Tested on over 50 public domains.
- Query generation Built a web service for data pooling and visualization. The app aggregated first and second party data from disparate sources; utilities to recommend, execute and display results of PL/SQL queries were provided.

#### IIT Madras – Research Intern, Chennai, Tamilnadu

November 2019 - May 2020

• Developed a novel algorithm called piMF to decompose concentration time series data of any chemical reaction into underlying coefficient and extent matrices using an alternating least squares approach (pending publication).

#### **ACADEMIC PROJECTS**

#### **End-to-end Spotify Genre Detection System**

Winter 2022

• Utilized Google Bigquery ML to perform K-means cluster analysis to segment songs into genres based on audio features of top tracks and user playlist data obtained through Spotify Client API. Cloud database was setup in order to test custom models and tune hyperparameters; app was deployed in Google App Engine.

#### **Collage Based Restaurant Rating Prediction**

Fall 2022

 Predicted customer sentiment of Yelp businesses using computer vision. Preprocessed and assembled collages in Open-CV; implemented VGG-like CNN architectures in Tensorflow to regress images into stars. Obtained a 20% accuracy boost from baseline naive classifier.

#### **Competitive Analysis of Luxury Car Market**

Fall 2022

 Leveraged discussion forums from edmunds.com in entry level luxury forum and conducted sentiment analysis and topic modeling using Word2Vec; visualized all brands on a multi-dimensional scaling map w.r.t chosen attributes.

## **TECHNICAL SKILLS**

- Programming: Python, Scikit-learn, Pandas, Numpy, Flask, Tensorflow, SpaCy, Open-CV, Scipy, Gurobi, R, C++
- Data Manipulation: Excel, PL/SQL, Oracle, MongoDB, BigQuery, Spark
- Data Visualization: Tableau, Seaborn, Matplotlib, Plotly, Bokeh, ggplot

#### **ADDITIONAL INFORMATION**

**Work Eligibility:** Eligible to work in the United States with no restrictions.