DATA SCIENCE | MACHINE LEARNING | DEEP LEARNING

MOTIVATION I am passionate about solving business problems using Data Science & Machine Learning. I systematically & creatively use my skillset to add tangible value to the team, the business, and the community. I am constantly learning, and always looking to acquire new skills.

SKILLS & TOOLS

Programming: Python (Base, Pandas, Numpy, Matplotlib, Scikit-Learn, Keras), SQL, R, Matlab, Java, SAS

Machine Learning: Linear Regression, Logistic Regression, Decision Trees, Random Forest, KNN, k-means, PCA, Association Rule Learning, Causal Impact Analysis

Other: MS Office, SQL, Power BI, VBA Macros, Sharepoint, Teams, Statistics, Github, Data Visualisation, Tableau, Jupyter Notebook, AWS, Google Cloud Platform

EDUCATION

Advanced Certification in Data Science and Al

Feb 2022 - Sep 2023 - IIT Madras

Relevant Courses: Advanced Statistics, SQL, Machine Learning & prediction Algorithms, Data science with PySpark, Al & Deep Learning using TensorFlow, Deploying ML models on Cloud, Data Visualization with Tableau, Data Wrangling, NLP and its applications

BASc (Chemical Engineering)

2016 - 2021 - University of British Columbia

PROJECTS

Customer Loyalty Score Prediction

- Trained a random forest regression algorithm in python to predict customer loyalty score using credit score, distance from store and transaction data.
- The results helped to target customers with offers and discounts based on loyalty

Enhancing Targeting accuracy

- Trained a random forests classification algorithm to predict if customers would buy delivery club membership using data from a previous delivery club campaign.
- Determined if the delivery club members increased their spending at the grocery store using causal impact analysis
- The results helped target the right customers and estimated the effectiveness of the promotion hence reducing promotional costs

"You are what you eat campaign"

 Used k-means clustering on grocery transaction data to split out customers into distinct "shopper types" that could be used to better understand customers over time, and to more accurately target customers with relevant content & promotions

Alcohol product relationships

- Used association rule learning to find relationships in buying patterns of various types of alcohol using a data set of 3500 alcohol transactions
- The results helped in optimizing product locations and running bundle promotions to increase sales

Fruit Classification

• Optimized a Convolutional Neural Network to accurately distinguish between 6 fruits so that the grocery store could invest in a sorting robot to reduce labor costs

Image Search Engine

- Applied transfer learning from VGG16 CNN to create an image search engine that shows the closest matches to the image of interest
- The program helped customers to search for similar looking items in the footwear section



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WORK EXPERIENCE

Data Management Administrator - Moe's Home Collection

May 2022 - Present

- Built Relationships with ecommerce business partners to plan and execute product launch and maintenance on their portal
- Evaluated consistency in pricing between the company database and business partner database using SQL and MS Excel.
- Built a python program to solve pricing and product data discrepancies on ecommerce business partner portals to ensure accurate data on all endpoints of the business and reduce customer care tickets by 50%.
- Automated processes involving image collection and inventory updates using excel VBA Macros to save up to 5 hours of manual work in a month

Research Assistant - UBC Civil Engineering

MAY 2021 - AUGUST 2021

- Used linear regression to optimize the hydrogen peroxide dosage, treatment temperature and retention time in the microwave enhanced oxidation process of dairy manure and wastewater sludge to minimize time taken for anaerobic digestion.
- Used Microwave enhanced oxidation process (MW-AOP) to treat wastewater sludge, collect samples and analyze parameters like Volatile fatty acid, COD, Ortho-P, and ammonia
- Recorded and entered data into Microsoft excel and extracted it to Python to analyze trends and find the optimal conditions for microwave treatment.

Production Management Engineer - Cargill Inc

AUGUST 2019 - MAY 2020

- Initiated the updating of the standard operating procedures (SOPs) by adding relevant pictures to improve effectiveness and ease of learning.
- Led the safety drive by making presentations on high-risk safety topics and presented it in front of all plant operators and management every week. Hence, helping new employees connect with the safety culture of the company.
- Collaborated with consultants and plant operators while working on technical process improvement projects to increase throughput and reduce waste

CERTIFICATE COURSES

DATA SCIENCE INFINITY

Actionable Learnings: Extracting & manipulating data using SQL. hypothesis tests for measuring the effect of AB Tests. Utilising Github for version control, and collaboration. data preparation for ML including missing values, categorical variable encoding, outliers, feature scaling, feature selection & model validation. Machine Learning algorithms like regression, classification, clustering, association rule learning, and causal impact analysis. Machine Learning pipelines. Deployment of a ML pipeline onto a live website using Flask & Heroku. Deep Learning models like ANN and CNN

INTERESTS

Sports: Cricket, Badminton, Tennis, Athletics, CrossFit Others: Stocks and Cryptocurrency trading/investing