

Experience

- Machine Learning Researcher**
Mitsubishi, Toronto, Canada July 2023 – Continue
 - In this collaborative project between Humber College and Mitsubishi, the goal is to **apply Machine Learning algorithms to optimize inventory and to provide future action plans to reduce risk by 10%**.
 - To achieve the objective, preprocessed data **by cleansing a large 12 years dataset**, performed data analysis techniques, **benchmarked the best ml algorithm, and consequently 4% increase in prediction.**
- AI Intern**
Dynacare, Toronto, Canada May 2023 – Continue
 - Lead an AI team of four members to develop a **question-answering AI chatbot**, which provides accurate answers to employees' inquiries based on the company's SOPs and documents, **reducing average time response by 40%**.
 - To build a chatbot, leveraged Langchain, commercial LLMs, and **improved 25% overall performance with agents, prompting, and chains.** Collaborated with a cross-functional team to build an interface with FastAPI and React.Js.
- Data Science Intern**
Gliese.AI, Toronto, Canada Nov 2022 - Feb 2023
 - Established automated ETL data pipeline** in Python and **stored more than 100GBS unstructured data in MongoDB without human intervention.**
 - Constructed sentiment analysis machine learning model for predictive modeling, which can analyze emotions expressed in text data to predict outcomes, **resulting in an impressive 5% boost in back-testing accuracy.**
- Systems Engineer**
Infosys Limited, Bengaluru, India Oct 2020 - Dec 2021
 - Implemented web applications working with Microsoft SQL, Asp.net, and angular6 **making applications 6 times faster.**
 - Detected bugs for the live project and remedied them with **40% less time than initially projected time.**
 - Hosted and maintained applications, models, and data in **Azure** cloud servers.

Education

- Enterprise Software Development**
Humber College, Toronto, Canada Jan 2023 - Aug 2023
- Applied Artificial Intelligence Solution Development**
George Brown College, Toronto, Canada Jan 2022 - Dec 2022
- Bachelor of Technology: Information and Communication Technology**
Pandit Deendayal Petroleum University, Gandhinagar, India Aug 2016 - Jun 2020

Skills

- Data Science & Analysis:** Python, R Language, Tableau, Machine learning Algorithms, Data Visualization, SQL, Excel, Pandas, Big Data, SSIS, MongoDB, Spark, HDFS, hive, NOSQL, Oracle, Graph Database, ETL tools, Data Warehouse
- Artificial Intelligence:** Deep Learning, Transformers, Natural Language Processing, Large Language Models, Langchain, Generative AI, Object Detection, Computer Vision, Text to image Generation, Tensorflow-Keras, Pytorch, Fine Tuning
- Software Development:** Asp.net, AngularJS, Express.JS, TypeScript, Flask, Docker, Azure Server, Jira, Gitlab, Agile

Projects

- Trainify: Machine Learning Toolkit** 🤖 🌐 [Python, Steamlit, Machine Learning, Analysis, scikit-learn, Pandas]
 - Deployed ML toolkit where users can complete pre-processing tasks, generate graphs, and **execute various ML tasks, from classification to regression. As a result, decreased repetitive time-consuming tasks by half.**
- Olympic Sports Analytics** 📊 [Data Analysis, Tableau, SQL, Python, KPI, Dashboard, Scorecard]
 - Created **10+ dashboards and scorecards depending on distinct KPIs on the 120 years Olympics data set**, using techniques like Pareto charts, Correlation, Prediction, and Python Calculation fields.
- Soccer Twitter Big Data** 📊 [NOSQL, SSIS, MongoDB, Spark, Tableau, Data Transformation]
 - Managed Database of 2 million+ records in MongoDB**, which is scraped live from soccer clubs' Twitter handles.
 - In SSIS, integrated structured and unstructured data** and transformed it into flat files. And then, sent these files to Spark for processing all files at once and then to Tableau for better visualizations and getting insights.
- Telecom Churn Prediction** 📊 [Data Cleaning, Data Analysis, Python, Smote, PCA, Machine Learning, Deep Learning]
 - Applied machine learning algorithms on an unbalanced data set **by balancing it through "Smote"** and PCA for dimensionality reduction and carried out variant analysis techniques. Designed different neural networks using Keras and PyTorch **to minimize loss and get better accuracy.** As a result, **accuracy increased from 79% to 91%.**
- Pothole Detection AI System** 📊 [Deep Learning, Object Detection Models, YOLO, R-CNN, Docker, Flask, AWS Server]
 - Developed a pothole detection system for self-driving cars utilizing flask and object detection models and **reduced false negative cases by 20%.** Generated Docker Image and deployed this AI system in the AWS server.