SAIMA IMTIYAZ

Data Science Associate

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EXPERIENCE

Associate

Axtria-Ingenious Insights

📅 July 2022 - Present 📍 Bangalore

Commercial Analytics and Forecasting

- Implementing descriptive and predictive statistical modelling to forecast the sales of workforce for setting the goals and correct targets using machine learning, assisting client to optimize workforce for maximum utilization
- Created interactive field target reports using Power BI

Sentiment Analysis on Drug Reviews for Improved Prescription Insights

- This project is aimed at utilized sentiment analysis on drug reviews from online health-related sites using text analysis and NLP techniques. The drug reviews contained a satisfaction score ranging from 0 to 9, which we classified into three polarities: negative, positive, and neutral.
- To extract hidden symptoms and drug side effects from the reviews, bidirectional LSTM, CNN, and a hybrid architecture combining both CNN and LSTM has been developed and implemented
- The approach resulted in valuable insights for pharmaceutical companies, leading to improved prescriptions and addressing patient complaints, achieving an impressive F1-score of 88%, surpassing the baseline by 40%.

Physician New Drug Adoption Prediction

- Developed an AI based solution to identify the prospective physicians who have high likelihood of adopting a new drug using machine learning
- Performed data cleaning, data exploration, data visualization, feature selection using RFE, modelling and optimizing the Random Forest
- Achieved accuracy of 77% with F1 Score of 73%

Tech Stacks used: Machine Learning, Deep Learning, NLP, Text Analysis, Statistical Data Analysis, Python, SQL, Data Visualization, Data Analysis, Power BI

EDUCATION

M.Tech (CSE) : 8.81 CGPA

IIT Bhilai

📅 Aug 2020 – May 2022 📍 INDIA

B.Tech (CSE): 8.92 CGPA

Madan Mohan Malaviya University of Technology, Gorakhpur

📅 Aug 2015 – May 2019 📍 INDIA

SKILLS

- Machine Learning • NLP • Computer Vision • Deep Learning • Python • Image Processing • Predictive Analytics • Statistical Data Analytics • GANs • Autoencoders • C++ • Opencv • Pytorch • Tensorflow • Sklearn • SQL • MongoDB • Data Structures and Algorithms • OOPs • Docker • MLOPs • Kubernetes • Git Actions(CI/CD) • Google Cloud Platform • AWS • Github • PowerBI

CERTIFICATIONS

- Machine Learning
- Python for Data Science
- Intermediate SQL Queries

KEY PROJECTS

Survivor detection in disaster situations using Unmanned Aerial Vehicle via Deep Learning

Master's Thesis

📅 2021-2022

- **Goal:** To detect the humans in the disaster situations under highly cluttered background with partially visible humans using Deep Learning
- Created custom Dataset simulating Earthquake disaster like situations using Drones.
- Created data annotation algorithm using Open-Pose for various body parts
- Devised Human detection through body parts using improved YOLOv5 with combination of channel and pixel attention attached between neck and head of YOLOv5.
- Achieved accuracy of 92.5% on test data set of disaster situations

Sensor Fault Detection

📅 2022-2023

- Designed and Developed end-to-end machine learning pipleine usings MLOPs to detect the failure caused by Air Pressure System using various machine learning algorithms
- Build a REST API prediction endpoints that integrates to S3 bucket for storing data to predict

Unsupervised learning-based automated approach for Surface Defect Detection based on Deep Learning

📅 2021 - 2022

- Generated Synthetic defects using OpenCV as data preprocessing step.
- Image-to-image translation network(Pix2pix GAN) with U-Net as a generator without skip connection and Markovian discriminator are trained for translation between synthetic defective image generated and non-defective image(without defects) to locate the defect from the anomaly map.

Predictive maintenance of Micro-drill using Machine Learning

📅 2020-2021

- Used OCSVM and RBF Kenerl in the streaming data to detect anomalies in micro drilling in equipment and processes to avoid the micro drill breakages

PROFESSIONAL ACHIEVEMENTS

🏆 **Axtria- Ingenious Insights**
Got the BRAVO Award for best performance and great contribution towards the team