

Manoj L.M

Data Scientist

manojlm2955@gmail.com | (+91)- 7619582955 | <https://www.linkedin.com/in/manoj-lm-9742bb22a/>

EXPERIENCE

Data Scientist (Intern)

Aug 2022 — May 2023

AI Variant PVT LTD

Bangalore

- Led the development of an AI-based framework that utilizes **Machine learning and Deep learning** algorithms to interpret results from PCR run files, resulting in a 2x faster turnaround time for result delivery.
- Established a **feature store** (relational database), for efficient data management of features extracted from PCR run files.
- Spearheaded the implementation of an **GUI-based automation application** to streamline data extraction, **resulting in a 50% reduction** in turnaround time.
- Developed a web application, that performs data upload and retrieval from SQL database, with features such as **Visualization, Feature Extraction, and Report Generation. Reduced data analysis time from hours to minutes** by incorporating ML model for signal classification.

PROJECTS

An AI-based framework and data-driven methodology for post-PCR High-Resolution Melting Analysis (HRMA),

May 2023 — July 2023

- Conceptualized a framework for classifying pathogens with the HRM data extracted from PCR run files.
- Executed **data pre-processing** through a **vision-based** technique, to eliminate noisy signals from the analysis, using **CNN**, for classifying genuine and non-genuine peaks.
- **Generated image data** of melting signals from various PCR run files, and constructed a data set for **multi-class classification** (0Noisy signal, 1- Signal with One peak, 2- Signal with Two peaks).
- Employed TensorFlow for building a dense neural network to learn patterns and features extracted from the signals using PyHRM, to classify positive **Meningitis** pathogens.

ML-based web application for predicting Bank customer Churn using Deep Learning,

Feb 2023 — April 2023

- Leveraged pre-existing datasets from Kaggle to train a deep neural network model in Tensorflow, due to the lack of original customer data in India.
- Scrutinized the data for analysis, including pre-processing and cleaning, and provided insights on the data through **Exploratory Data Analysis** and created an **interactive dashboard** using **Power BI** for visualization and data comparison.
- Integrated a web application using HTML, CSS, and **Flask** to predict customer churn based on user input. Achieved an accuracy of 85% in predicting customer churn through the developed application, that can be helpful to identify potential customer churn risks and improved decision-making for banking organizations.

N-Gram Modelling for E-Commerce Product Reviews & Classification with Transformers pipeline,

Nov 2022 — Jan 2023

- Generated a data set of reviews by scrapping over **5000 product reviews** from an e-commerce website using **Beautiful Soup (bs4)** and Selenium WebDriver in Python.
- Conducted data cleaning, feature engineering, and text pre-processing techniques such as **punctuation removal, stopwords removal, lemmatization, stemming, and word count**.
- Constructed a corpus, vocabulary, and **bigrams/trigrams**, utilizing Bayesian rules to predict the next probable word.
- Utilized **Transformers-pipeline** (Python) for sentiment analysis, enabling labelling of positive and negative reviews.

Image to Hashtags,

Aug 2022 — Oct 2022

- Developed an AI tool that identifies trending hashtags for images based on the content of the image.
- Employed **vit2-gpt2-image-captioning** pre-trained model from hugging face repository to caption images given by the user.
- Leveraged **openai's gpt-3.5-turbo** model to generate hashtags for the captions generated.
- Built an interface using gradio, and made users to upload any images or URL, to generate hashtags for the given image and deployed

EDUCATION

Master of Computer Science and Application (MCA), Mysore University, GPA: 8.34/10.00

Feb 2022 — March 2024

SKILLS

Languages	Python, SQL
Libraries & Tools	Pandas, NumPy, Matplotlib, Seaborn, Plotly, SciPy, Sckit-learn, TensorFlow, Keras, NLTK, Flask, beautiful soup, PowerBI, Tableau, GIT, GitHub
Data Wrangling	Data generation, Data Extraction, Data Cleaning, Exploratory Data Analysis, Feature Engineering, Feature selection, Data visualization.
ML Skills	Data Modelling, Clustering & Classification, Quantitative Analysis, Regression, Predictive Modelling, Statistical Modelling, Model Validation, Model deployment, CNN& RNN.

COMPETITIONS

- Participated in IBM skills network conducted exam at 2023, and submitted the Machine Learning with Python test and I got an appreciation certification.

CERTIFICATIONS

- Data Science course completion – Excel’R Resolution.
- Data Analyst course completion – Excel’R Resolution.
- Data Scientist and Analyst Internship certification – AI Variant, Bangalore.
- Machine Learning with Python – IBM skills network.