Mownetharan A K S

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| **EDUCATION** |
| **Indian Institute of Technology, Madras Chennai** |
| *B.Tech in Aerospace Engineering May 2022* |
| - Coursework: Data Analytics, Applied Statistics, Probabilistic Systems Analysis & Applied Probability, Linear Algebra, Differential Equations, Complex Variables, Python for Data Science |
| **SKILLS & CERTIFICATIONS** |
| * Certifications: Generative AI by Microsoft, Deep Learning with Tensorflow, Machine Learning, Computer Vision * Skills: Python, EDA, Modelling, Computer Vision, NLP, SQL querying, Pipelines * *Libraries: Pandas, Scikit-Learn, Tensorflow, Numpy, ScraPy, PyTorch, Streamlit, Flask, OpenCV, PySpark* * *LLMs: Gemini AI, Llama 2, OpenAI, LangChain* |
| **PROFESSIONAL EXPERIENCE** |
| **IQVIA Bangalore** |
| *Analyst Jan 2023 - \** |
| * Developed an NLP tool from scratch using streamlit to perform text preprocessing, clustering topic modelling and word frequency analysis from datasets like survey responses, comments, etc. * Conducted Deep-dive Analysis on a Price Elasticity model to evaluate pricing strategies on pharmaceuticals & assessed the model’s robustness, ensuring strategic pricing decisions were data-driven. * Enhanced various projects like Market Segmentation & Persona Enrichment to improve target identification & market strategies with modelling and extrapolation techniques. |
| *Associate Software Developer (AI/ML) Jul 2022 - Dec 2022* |
| * Built data pre-processing pipelines to collect & prepare datasets to be used for pre-trained text-based deep learning models. * Deployed deep learning models like XClass, WeSH etc on pre-processed label data for text-based classification with 70+ classes * Developed APIs to extract data from label PDF files into DOCX, XML and JSON formats |
| **The Prints Company Hyderabad (Remote)** |
| *Machine Learning Engineer Intern Feb 2022 - Mar 2022* |
| * Deployed Generative Adversarial Network StyleGAN2 with PyTorch to generate designs similar to training data. * Developed 5 new web-crawling spiders with ScraPy to scrape high quality design images from popular stock image sites. * Handled data resizing & cleaned junk from 10,000+ scraped raw training images with VGG-16 clustering model. |
| **PROJECTS** |
| **LLM Applications** |
| * Developed a generative movie script authoring tool using fine-tuned LLMs (Gemini) for plot exploration and script generation based on user input. * Performed Similarity Search using FAISS |
| **Transfer Learning for Natural Language Processing** |
| * Implemented various pre-trained NLP text embedding models NNLM, USE, GNews Swivel from Tensorflow Hub. * Performed transfer learning to fine-tune models of various dimensions on Quora Insincere Questions Dataset. * Visualized performance metrics with TensorBoard for fine-tuned and high dimensioned version of all models. |
| **Term Deposit Marketing Classification** |
| * Classified Term Deposit subscription with data from 40000+ calls made by a Portuguese banking institution. * Trained and Tested Random Forest Classifier, Logistic Regression, Support Vector Machine & KNN models. * Generated Synthetic samples from minority class to diagnose Class Imbalance with SMOTE method. |
| **COVID-19 Data Exploration & Analysis** |
| * Explored COVID19 dataset, published by John Hopkins University along with World Happiness Report dataset. * Visualized two datasets, revealing a surprising relationship between maximum infection rates and happiness factors |
| **LEADERSHIP EXPERIENCE** |
| **Saarang 2019 (Cultural fest of IIT Madras) Chennai** |
| *Publicity Coordinator Mar 2018- Mar 2019* |
| * Spearheaded a team of 50 ambassadors across various colleges to publicize Saarang 2019 in Tamil Nadu. * Amplified the outreach with a 28% increase in footfall in Saarang from 70,000 in 2018 to 90,000 in 2019. |