Chander Mohan

Data Science Professional
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Summary

Experienced Machine Learning Engineer with over two years of hands-on experience in data analysis, data visualization, model development, and deployment with expertise in Python, R Programming, SQL and qualified professional in Master of Data Sciencefrom RMIT University.

Technical Skills

Languages: Python, R Programing, SQL, HTML, CSS
Frameworks: TensorFlow, ML Flow, Scikit-learn, Flask, Django, Hadoop, NLTK, Pandas and NumPy, Map-Reduce, Keras API, Streamlit, Large Language Models
Developer Tools: AWS, Netlify, GitHub, Heroku
Libraries: DVC (Data Version Control), MLFlow, Model Deployment, CI-CD pipeline, GitHub Actions, Kubeflow

Experience

Data Science Intern Jul 2023 – Nov 2023
CSIRO

- Developed and implemented innovative data augmentation methodologies for tabular data in the genetics domain. Very under-researched area in data augmentation on tabular data.
- Collaborate with team and client to understand Genetic data and experiment with different techniques and machine learning model to compare the performance
- By implementing data augmentation methodologies and creating end-to-end pipelines, we have enabled to derive actionable insights from complex genetic data and enhance the model performance by 80% to 87% by using Mixup Algorithm.

Machine Learning Engineer Feb 2020 – Nov 2021
Marlabs INC

- Experience in machine learning algorithms and models to solve complex business problems, leveraging techniques such as supervised and unsupervised learning, deep learning, and reinforcement learning.
- Conducted data preprocessing, feature engineering, and selection to optimize model performance and accuracy, ensuring high-quality input data for analysis.
- Utilized Kubeflow to orchestrate and manage machine learning workflows on Kubernetes, ensuring scalability, reliability, and portability of our models
- Collaborated with different teams including data scientists, software engineers, and business stakeholders to understand project requirements, gather data, and deliver actionable insights.
- Ensuring data integrity and accuracy while doing data management and security.

Data Science Intern Aug 2019 – Dec 2019
DCS Technologies

- Assisted in data collection, cleaning, and preprocessing tasks to ensure data integrity and quality.
- Assessing the performance of machine learning models using appropriate metrics. Fine-tune models to achieve desired outcomes.
- Collaborated with other team members for creating comprehensive reports and summarizing findings.

Projects

Portfolio Website | *Node js, React, HTML, CSS, CI-CD Pipeline* chandermohan.xyz

- Developed a full-stack web application using with Node.js serving a REST API with React as the frontend
- This portfolio is a reflection of my professional journey, personal projects summary
- Design & Developed Custom Components and used Modern framework and Reacts APIs

Projects

Facial Emotion Recognition | *TensorFlow, CNN Model, Transfer learning, google colab*

- The objective of this project is to develop a single CNN neural network that will automatically recognize facial expression and facs code for an image.
- Implemented Neural Network CNN model to create this model.
- Explored different image pre-processing tools and libraries to analyze and clean the image data. And create own custom data loader for pre-processing.
- Using the VGG16 Model by utilizing transfer learning with custom layers.

Movie Recommendation And Review Analysis | *Data Collection, API, ETL Processing, Flask, Model Deployment*

- Implemented a robust movie recommendation system with sentiment analysis using MLops principles, showcasing expertise in machine learning integration with operational processes.
- Leveraged TMDb API for comprehensive movie data retrieval, including details on cast, crew, and reviews, demonstrating proficiency in API integration and data acquisition.
- Using Flask framework for user interface, showcasing ETL processing capabilities by fetching data through APIs, appending it to existing datasets, and performing calculations to present refined results.
- Demonstrated adaptability by dynamically updating the dataset through API calls, enabling real-time addition of new movies and ensuring up-to-date recommendations for users.

Regression Optimization through MLops | *github Actions, DVC, CI-CD Piplines, Flask*

- The primary focus is on establishing a robust MLOps pipeline, integrating it with a CI/CD pipeline, and leveraging the Data Version Control (DVC) framework. The goal is to streamline and automate the end-to-end machine learning lifecycle.
- Set up CI/CD pipelines to automate model deployment and monitoring, facilitating rapid iteration and updates.
- Ensured consistency and reliability of model deployments across different environments through version control and automated testing.

Fraud Detection Project by using SQL | *SQL, Pandas, Plotly, PostgreSQL, SQL Schema Design*

- Designed SQL schema for transaction and customer data from CSV files
- Implemented foreign keys and primary keys to ensure data integrity. And utilized SQLAlchmeya library to connect to the database
- Executed queries and employed Python pandas framework for data manipulation and fraud detection. Generated visualizations such as graphs to analyze fraudulent transactions

Education

RMIT University Melbourne, Australia

Master's Degree, Data Science *2022 - 2023*

Coursework: Advanced Programming for Data Science, Algorithms and Analysis, Machine Learning, Big Data Processing, Deep Learning, Database Concepts, Data Visualization, Applied Analytics

CDLU University Haryana, India

Bachelor's Degree, Mathematics *2016 - 2019*

Coursework: Descriptive Statistics, Real Analysis and Probability, Discrete Mathematics, Calculus, Computer Networks, Operating System, Data Structure