Pasindu Kurukulasuriya

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github.com/MaduP19

PROFILE

Motivated Data Science undergraduate at the University of Peradeniya with hands-on experience in machine learning, predictive analytics, and AI. Skilled in Python and SQL for data manipulation, model development, and NLP tasks like sentiment analysis and text classification. Proficient in building dashboards using Power BI and Looker Studio. Experienced in data collection, cleaning, and integration from diverse sources. Led the Data Science Society, organized tech events, and fostered industry partnerships. Strong in EDA, communication, and collaboration on LLM and AI-driven projects.

TECHNOLOGIES

Languages: Python, R

Frameworks & Libraries: Scikit-learn, Tensorflow, Keras, Numpy, Pandas, Plotly, Matplotlib, Seaborn, Scipy

Databases: MySQL, MongoDB, Redis, Neo4j

Developer Tools: Git, Docker

BI Tools: Power BI, Looker Studio

Cloud Technologies: AWS

Productivity Tools: Microsoft Office Suite (Word, Excel, PowerPoint, Outlook)

EDUCATION

University of Peradeniya *Feb 2021 - Present*
Bachelor of Science (Hons.) Data Science

PROJECTS

Personalized Restaurant Recommendation System Using Machine Learning

- Analyzed restaurant data and customer reviews in Kandy, Sri Lanka using clustering and sentiment analysis Built an interactive dashboard and map for data-driven insights for restaurant owners.
- **Tools Used: APIFY, Python, Pandas, Scikit-learn, NLTK, K-Means, Naive Bayes, Jupyter Notebook**

Machine Learning Model for Predicting Air Quality Parameters in Sri Lanka: Integrating Multi-Source Data for Air Quality Management(Ongoing)

- As my research problem, developing a machine learning model to predict air quality parameters in Sri Lanka by integrating data from multiple sources, aiding in timely and accurate air quality management.
- **Tools Used: Python, Scikit-learn(Random Forest, KNN, SVM, Multiple Linear Regression), Pandas, NumPy, Jupyter Notebook, Cross-validation**

Recurrent Neural Network Models for Personal Health Mention Classification

- Developed and compared LSTM and Bi-LSTM models to classify tweets as personal health mentions, evaluating their effectiveness on the dataset.

- **Tools Used: Python, TensorFlow/Keras, LSTM, BiLSTM, Jupyter Notebook**

Frozen Lake Reinforcement Learning: Data-Driven Agent Guidance

- Developed a Q-learning agent with dynamic exploration to navigate the slippery Frozen Lake environment, achieving high success in reaching the goal despite uncertainty.
- **Tools Used: Python, ε-greedy exploration, Epsilon decay, Boltzmann exploration, Double Q-learning, Scikit-learn, Pandas, NumPy, Matplotlib, Jupyter Notebook**

Multivariate Analysis of International Education Costs using PCA, Factor Analysis, and LDA

- Explored global education cost patterns using PCA, Factor Analysis, and LDA for cost classification and decision support.
- **Tools Used: Python, pandas, numpy, matplotlib, seaborn, Scikit-Learn, factorAnalyzer**

EXPERIENCE AND VOLUNTEERING

President *Nov 2024 – Present*
Data EX- Data Science Society - University of Peradeniya

General Secretary
Data EX- Data Science Society - University of Peradeniya *Mar 2024 – Nov 2024*

Event Coordinator
Computer Society, University of Peradeniya *Mar 2024 – Nov 2024*

CERTIFICATIONS

- **CompTIA Cloud+ Basic** – Alison
- **IBM Data Science Professional Certificate** – IBM (Coursera)
- **AWS Cloud Technical Essentials (Ongoing)** – Coursera
- **Generative AI Engineering with LLMs Specialization (Ongoing)** – IBM (Coursera)

REFERENCES

Prof. Roshan D. Yapa
B.Sc. (SJP), M.Sc. (CMB), D.Eng. (Hiroshima, Japan)

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