MAKESH K

◇ +91 8508573229 ◇ 24, Madhumitha nagar, Dharapuram Road, Udumalpet - 642203
makeshudt97@gmail.com ◇ linkedin.com/in/makesh-karuppasamy ◇ github.com/makesh84

PROFESSIONAL SUMMARY

Experienced Data Science professional with 2 years of experience as a member of the Data Science Team and Teaching Assistant at RVS Educational Trust. Currently advancing my expertise through a Data Science course at Datamites Institute. Specialized in machine learning techniques such as regression, classification, and clustering, with a proven track record of developing and deploying advanced models that drive innovation and efficiency. Skilled in collaborating with cross-functional teams to generate data-driven insights that support informed decision-making. Immediately available for data science-related roles and open to relocation. Committed to leveraging my growing knowledge in data science to propel organizational success and foster a culture of continuous improvement.

EDUCATION

M.Sc.[Computer Science] with Specialization Data Science, RVS College of Arts and Science 2019 - 2021
B.Sc.[Information Technology], Kamalam College of Arts and Science 2016 - 2019
Diploma in Electrical and Electronics Engineering, Rudhraveni Muthuswamy Polytechnic College 2014 - 2016

SKILLS

- **Programming Languages:** Python, R, Java.
- **Machine Learning:** TensorFlow, PyTorch, Keras, Scikit-learn, NLTK.
- **Data Analysis:** EDA, Statistical Analysis, Mathematics.
- **Data Processing:** Pandas, NumPy
- **Data Visualization:** Tableau, Power BI, KNIME.
- **Web Development:** Flask, Django, HTML, CSS, JavaScript.
- **Database:** Excel, MySQL, MongoDB.
- **Tools & IDEs:** Jupyter, VS Code, PyCharm.
- **Version Control:** Git / GitHub.
- **Cloud Platforms:** Google Cloud, AWS.
- **Algorithms:** Supervised Learning, Unsupervised Learning, Reinforcement Learning, Neural Networks, NLP, Time Series Analysis.

EXPERIENCE

TA - Data Science Team Nov 2021 - Jun 2023
RVS Educational Trust *Coimbatore*

- Data preprocessing involves cleaning and understanding data to prepare it for analysis and modeling.
- Developed advanced ML techniques including Regression, Classification, Time Series Analysis, ANN, CNN, and Clustering algorithms.
- Model Development and Deployment.
- Cross-Functional Collaboration.
- Data-Driven Decision-Making.

PROJECTS

Boiler Blow Down (01/2022 - 04/2022). Developed a system to optimize the boiler blow down process by analyzing water quality data and boiler conditions, predicting optimal blow down intervals using machine learning. Integrated real-time sensors to automate blow down frequency, minimizing water and energy consumption, reducing chemical treatment costs, and extending boiler lifespan.

Nutrition Recommendation System (12/2022 - 05/2023). Develop a machine learning model to deliver personalized nutrition plans by analyzing health profiles and dietary preferences. The system will utilize regression models for calorie and macronutrient prediction, clustering for grouping similar dietary patterns, and collaborative filtering to recommend tailored recipes or food items.

Hotel Review Sentiment Analysis using NLP. Developed a sentiment analysis model to classify hotel reviews as positive or negative using NLP techniques, including TF-IDF vectorization and Naive Bayes classification. Achieved 88% accuracy, and deployed the model for real-time sentiment prediction to help businesses analyze customer feedback and enhance decision-making.

Air Passengers Time Series Analysis. Completed during a Data Science Course. Analyzed a time series dataset of monthly airline passengers (1949–1960), identifying trends and seasonality through data decomposition into trend, seasonal, and residual components. Built ARIMA and SARIMA models with 90% forecasting accuracy and presented insights via Matplotlib visualizations to aid strategic decision-making.

Breast Cancer Classification Using ANN. Completed during a Data Science Course. Developed an Artificial Neural Network (ANN) model to classify breast tumors as benign or malignant using the Breast Cancer dataset, achieving a classification accuracy of 95%. Preprocessed the data, built a multi-layer ANN with ReLU and sigmoid activations, and visualized training and validation accuracy/loss to ensure optimal model performance and minimal overfitting.

CIFAR-10 Image Classification using CNN. Developed an advanced image classification system using Convolutional Neural Networks (CNNs), leveraging Keras and TensorFlow for model building, training, and deployment. Built a CNN for classifying images from the CIFAR-10 dataset, achieving 75% accuracy. Designed, trained, and optimized the model, evaluating performance through training/validation accuracy and loss metrics to ensure model effectiveness.

CERTIFICATIONS

- Machine Learning Scientist with R.
- R Programming.
- Python Course: Beginner to Advance Masterclass.
- Python Machine Learning.
- Data Visualization Using Tableau, Power BI
- ChatGpt and AI hacks with MS Office.
- Basic Proficiency in KNIME Analytics Platform.
- ChatGpt for Everyone

ACHIEVEMENTS

- **Robotryst.** Certificate of Merit, Zonal Round of Robotryst-2015
- **Guinness World Record.** Participated in the largest human representation of text in Goa, India, Feb 2019

ADDITIONAL INFORMATION

- **Languages:** English, Tamil
- **Availability:** Immediately available for data science-related roles and open to relocation.