MADESH M
DATA SCIENTIST

📞 +91 6374891755   🌐 https://madesh6554-portfolio.my.canva.site/   ✉ madesh6554@gmail.com

 madesh6554(Madesh M)   in linkedin.com/in/madesh-m-15037b273   k madesh6554

SUMMARY

Analytical and results-driven data professional with hands-on experience in data analysis, artificial intelligence, and machine learning. Proficient in Python, SQL, and Excel, with a track record of building predictive models and AI-driven solutions. Skilled at translating complex data into actionable insights to support strategic business decisions. Passionate about applying intelligent automation to solve real-world problems across diverse domains.

SKILLS

Core Domains:
- Machine Learning
- Deep Learning
- Computer vision
- Natural Language Processing
- Data Visualization
- Database Management

Language & Tools:
- Python
- SQL
- R
- Excel
- Tableau
- Power BI

Working Platforms:
- Anaconda
- Jupyter Notebook
- spyder
- PyCharm
- Google Colab
- Visual Studio

Data Handling Expertise:
- Data Annotation
- Data Preprocessing
- Data Cleaning
- Exploratory Data Analysis (EDA)

WORK EXPERIENCE

Data Science & AI R&D Intern - Space Kidz India   Jan 2025 - May 2025

- Spearheaded the development of AI ModelHub, a unified interface integrating 10+ pre-trained models spanning NLP, Computer Vision, Audio, and Generative AI domains.
- Designed Gemini Analyzer (visual-text analysis tool) and Sign Translate (sign language to text converter), working with text, image, audio, and video data — aligned with multimodal AI workflows.
- Coordinated across modules and datasets to ensure data consistency, annotation quality, and smooth deployment.

Skills Used: Python, Flask, Multimodal Data Processing, Communication, Model Integration, Team Collaboration

Data Visualization Intern - Cognitive i IT Solutions, Salem   Mar 2024- Jul 2024

- Built dynamic dashboards using Tableau and Power BI for domains including climate analysis, retail performance, and entertainment trends.
- Conducted thorough data cleaning, annotation support, and exploratory data analysis (EDA) to identify actionable insights.
- Specialized in transforming complex datasets into visual narratives for non-technical stakeholders.

Skills Used: Tableau, Power BI, Python, Data Cleaning, EDA, Data Storytelling, Visual Analytics.

Data Science Intern - OASIS Infobyte   Oct 2023 - Nov 2023

- Created a spam email classification model using TF-IDF vectorization and Logistic Regression, achieving 96% accuracy.
- Applied text annotation, preprocessing, and model evaluation techniques to improve NLP model performance.
- Hands-on with classification problems, data validation, and error analysis, similar to annotation refinement tasks at Amazon.

Skills Used: Python, Scikit-learn, TF-IDF, NLP, Logistic Regression, Data Annotation, Evaluation

EDUCATION

Master's Degree in Data Science - 2023 - 2025
Periyar University.
CGPA: 8.214

Bachelor's Degree in Mathematics - 2020- 2023
Arignar Anna Government Arts College
CGPA: 7.642

Language: Tamil & English

CERTIFICATES

- Nlp– Coursera
- Fundamentals of Deep Learning – NVIDIA
- Python for Data Science, AI & Development – IBM / Coursera
- Tableau - Simple Learn
- SQL for Data Science – Coursera

PROJECT:

- **Satellite Health Monitoring System**

  - Developed and deployed a real-time anomaly detection system monitoring 40+ satellite parameters, resulting in 100% alert accuracy and reducing failure risk by early detection up to 80% faster than manual tracking.
  - Trained an Isolation Forest algorithm to detect anomalies, integrated real-time email alerts, and visualized live data using a Streamlit dashboard.
  - Managed structured data in MySQL and utilized AWS S3 for scalable remote storage.
  - Live Demo: satellite-health-monitoring

  Skills: Python, Machine Learning, Anomaly Detection, Isolation Forest, MySQL, AWS S3, Streamlit, Email Automation, Data Preprocessing, Data Engineering

- **Image Caption Generator**

  - Built and deployed an AI-powered image captioning tool using VGG16 + LSTM, achieving over 85% BLEU score on test data and successfully generating accurate captions for 90% of real-world images uploaded.
  - Trained and validated the model using the Flickr8k dataset, comprising 8,000 images each with multiple human-written captions.
  - Improved a front-end interface where users can upload any image and receive an AI-generated descriptive caption.
  - Applied transfer learning, tokenization, and sequence padding for robust caption generation.

  Skills: TensorFlow, Keras, VGG16, LSTM, NLP, Computer Vision, Image Annotation, Transfer Learning, Sequence Modeling

- **Email Spam Detection**

  - Built an NLP model using TF-IDF and Logistic Regression that achieved 96% classification accuracy on real-world spam datasets, improving detection performance by 15% compared to baseline models. Achieved 96% accuracy on test data, showcasing efficient handling of textual datasets.

  Skills: Scikit-learn, TF-IDF, Text Preprocessing, NLP, Classification, Accuracy Evaluation

- **Smart Electronics Recommendation System - Boston Training Academy Internship**

  - Designed and deployed a smart recommendation system with 90%+ match accuracy using content-based logic and fuzzy string matching, enabling real-time suggestions with <1 second response time on live deployment.
  - Applied web scraping to collect product data and used FuzzyWuzzy for string similarity to improve product match accuracy.
  - Built and deployed an interactive front-end using Streamlit on Streamlit Cloud for real-time product suggestions.
  - Skills: Python, Machine Learning, Web Scraping, Fuzzy Matching, Recommendation Systems, Streamlit