

# MADESH M

## DATA ANALYST

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 madesh6554

### SUMMARY

Highly motivated Data Science postgraduate with a strong foundation in data analysis, statistical modeling, and visualization. Skilled in Python, SQL, Excel, Tableau, and Power BI, with hands-on experience in cleaning, analyzing, and visualizing datasets through academic projects and internships. Seeking an entry-level Data Analyst role to apply analytical skills, uncover insights, and support data-driven decision-making.

### SKILLS

Core Domains:	Language & Tools:	Working Platforms:	Data Handling Expertise:
<ul style="list-style-type: none"><li>Machine Learning</li><li>Deep Learning</li><li>Computer vision</li><li>Natural Language Processing</li><li>Data Visualization</li><li>Database Management</li></ul>	<ul style="list-style-type: none"><li>Python</li><li>SQL</li><li>R</li><li>Excel</li><li>Tableau</li><li>Power BI</li></ul>	<ul style="list-style-type: none"><li>Anaconda</li><li>Jupyter Notebook</li><li>spyder</li><li>PyCharm</li><li>Google Colab</li><li>Visual Studio</li></ul>	<ul style="list-style-type: none"><li>Data Annotation</li><li>Data Preprocessing</li><li>Data Cleaning</li><li>Exploratory Data Analysis (EDA)</li></ul>

### 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