Seetharaman Radhakrishnan

Data Scientist|Python Developer |AI/ML Engineer
Open to Relocation & Global Opportunities |UK Graduate Visa Holder
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Summary

AI and Machine Learning graduate with strong Python programming, data analysis, and deep learning skills. Proficient in designing and deploying machine learning pipelines, building interactive apps, and integrating APIs. Experienced in NLP, signal processing, and image analysis. Passionate about solving real-world problems through applied AI, with multiple self-driven projects hosted on GitHub.

Experience

Developer - Sheffield,UK September 2024–Present

AI & Python Projects

- **D**elivered end-to-end Python applications for math utilities, data tools, and games using OOP and Streamlit.
- **D**eployed CLI and GUI tools for statistics, unit conversion, matrix operations, and cryptography.
- **E**xecuted a Student Performance Analytics project with UCI ML dataset, applying Random Forest and Logistic Regression to identify academic performance indicators.
- **P**ublished well-documented code with Jupyter notebooks and GitHub repositories.

Education

Sheffield Hallam University - Sheffield, UK 2023-2024

M.Sc.(Artificial Intelligence)- Merit(2:1)

Anna University- Chennai,India 2018-2022

B.E(Electronics and Communication) - FirstClass Honors

Core Skills

- **Deployments & API Development:** Python , REST APIs, CLI & Streamlit Apps, GitHub workflow
- **Machine Learning & Deep Learning:** Neural networks, generative AI, probabilistic generative models, LLMs.
- **Computer Vision & Image Processing:** AI-driven image reconstruction, content editing, and signal processing.
- **Programming & Frameworks:** Python, TensorFlow, PyTorch, Sklearn, Langchain.
- **Model Validation& Optimization:** Cross-validation, hyperparameter tuning, AUC-ROC, model interpretability
- **Data Analysis& Optimization:** Feature engineering, data preprocessing, statistical analysis, visualization.
- **Tools & Version Control:** Git, Google Colab, VS Code, Webots, Overleaf, MATLAB

Projects |Link

- **SuperStore Sales Dashboard** Jun 2025
  Implemented interactive sales dashboard and forecasting models (Prophet & ARIMA) on Superstore dataset; reduced load time from **0.40s to 0.01s** using data caching and enabled real-time exploration with filters, KPIs, and visual insights.
- **Student Performance Analytics** Jun 2025
  Machine learning models were enhanced to predict student grades, improving accuracy from **91% to 92%** through hyperparameter tuning and feature selection. Key factors influencing performance were identified, enhancing model interpretability and decision-making support.
- **Math Utility Toolkit** May 2025
  Crafted a modular Python toolkit integrating calculator, geometry, statistics, and sequence generators with CLI and Streamlit GUI interfaces. Organized 1000 lines of code using OOP principles to ensure scalability and maintainability. Validated functionality with **25+** test cases, enhancing accessibility to essential mathematical tools..
- **Schwa Identification** May 2024
  Collaborated with client to implement AI-driven speech pipeline for ESOL pronunciation, focusing on schwa features and delivering precise phonetic feedback beyond word-level analysis.
- **Forecasting Depression in Students** Sept 2024
  Implemented ML models (Random Forest, SVM, Neural Networks) to predict student depression severity. Achieved **95.06%** accuracy and **0.995** AUC-ROC using feature selection **(threshold= 0.2)** and cross-validation. Identified key factors such as academic stress and social isolation to support early mental health intervention.

Certifications

- **Python for Data Science, AI & Development**(IBM-Coursera) Feb 2025
- **Building a Personalized Chatbot with OpenAI and LangChain**(LinkedIn) Feb 2025
- **Hands-On AI: Build a Generative Language Model from Scratch**(LinkedIn) Dec 2024
- **Generative AI: Working with Large Language Models**(LinkedIn) March 2024
- **Introduction to Large Language Models**(LinkedIn) Mar 2024
- **Signal Processing Onramp**(MATLAB Coding) Mar2024
- **MySQL for Non-Programmers**(LinkedIn) Nov 2024