Malavika Gowthaman [*Portfolio*]

AI Engineer | Data Scientist | Masters in Data Science
Scarborough, Ontario, Canada

Email:malavikag115@gmail.com
Phone: + 1 647 446 1531
LinkedIn.com | GitHub.com

Data Scientist and AI Engineer with 5 years of experience in data collection, model development, and deployment, specializing in deep learning, machine learning, and neural networks. Strong background in IT, computer science, mathematics, and data analytics, with expertise in large language models (LLMs).

WORK EXPERIENCE

Hope Artificial Intelligence Pvt Ltd - *AI Engineer*   **04/24 – Present**

- Developing a healthcare app to improve disease diagnosis accuracy by 20% through data collection and analysis of over 10,000 patient records. Implementing machine learning models for predictive analysis, aiming to reduce diagnostic time by 30%.Focusing on optimizing performance and providing real-time insights for better decision-making in healthcare.
- Built a Random Forest model for personal loan eligibility prediction with 99% accuracy, collaborating with cross-functional teams including finance and product management to deploy the model in a web interface.(GitHub.com).
- Developed FitTrack, a Streamlit web app with Python and Google's Gen AI for BMI calculation and personalized recommendation, featuring robust error handling and secure API management.(GitHub.com)

HCL Technologies - *Senior Software Developer in Data Science*   **09/22 – 04/24**

- Developed Python code for document classification, invoice processing, and language detection with 95% accuracy, using MLflow for model tracking.
- Created P2DTM BIM 7D dashboards and led machine learning research on Azure ML, improving forecasting accuracy by 20%.
- Visualized call flow trends using PowerBI and DAX, analyzing over 50,000 records, and automated data extraction for 150+ entries with Python and Pyppeteer. Collaborated with clients to deliver tailored software solutions that met specific business requirements.

Xecutesmart Technologies - *Data Scientist*   **06/21 – 09/22**

- Developed and deployed disease prediction models using Python, TensorFlow, Keras, and ML algorithms, achieving nearly 90% accuracy. Conducted sentiment analysis on airline data and visualized insights from Twitter comments.
- Analyzed reservation system data with Talend and Power BI, creating dashboards. Designed dimensional data models for banking projects and executed complex SQL queries and ETL processes using Informatica.

Grroom - *Software Developer*   **12/19 – 05/21**

- Gained foundational experience as an intern, developed and optimized complex SQL queries, also created interactive dashboards as a full-time Software Developer, which improved data reporting efficiency by 30%.
- Worked on data collection, labelling, and pre-processing in the fashion industry, handled and prepared data from more than 10,000 images to enhance model accuracy and performance.

PROJECT EXPERIENCE

- Created a Flask web app for doctors to predict diseases using patient data, enabling early diagnostics. Utilized feature engineering and GridSearchCV to optimize the machine learning model for accurate predictions.(GitHub.com)
- Developed a smoking detection model using PyTorch YOLOv5, achieved 90% accuracy, and documented the process in a Jupyter notebook for future enhancements.(GitHub.com)
- Designed a deep learning model using TensorFlow and VGG19 for chest cancer classification based on CT scan images. Utilized Docker and GitHub Actions for CI/CD pipelines and deployed the front-end application for this project on the AWS platform.(GitHub.com)
- Engineered a TensorFlow-based CNN model with 99% accuracy for face mask detection in images and real-time videos, also implemented rigorous data pre-process to improve the data quality and validation techniques.(GitHub.com)
- Launched an Information Retrieval System Streamlit web application focused on 3 types of documents using Langchain, and successfully launched on AWS EC2 for scalable access.(GitHub.com)
- Implemented a house price prediction model and created a web application that was deployed in a GCP Docker container for real-time use. (GitHub.com)
- Developed a model using YOLOv8 for real-time detection of helmets and number plates from live video feeds. (GitHub.com)
- Created a model for industrial safety gear detection using YOLOv8, capable of detecting safety gear in real-time. (GitHub.com)

EDUCATION

- Masters of Technology in *Data Science* | Anna University, Tamil Nadu, India   **06/2021**
- Bachelor of Engineering in *Electronics and Communications Engineering*| Anna University, Tamil Nadu, India   **05/2019**

SKILLS

Programming: Python, Cloud: AWS, GCP, Azure ML, AI & ML: Deep Learning, Machine Learning, NLP, TensorFlow, PyTorch, Visualization tools: Power BI, Tableau, CI/CD & Tools: Docker, GitHub Actions, MLflow, Kubernetes, Databases: Oracle SQL.

CERTIFICATION

Microsoft: Data Science Associate, Coursera: Deep Learning.ai Specialization, Data Analytics using ML & AI.