# Aman Vishwakarma

### **EDUCATION**

Vellore Institute of Technology

MSc. Data Science - 9.00 - CGPA

University of Mumbai

BSc. Mathematics - 9.24 - CGPA

 $07\ 2023 - 07\ 2025$ 

Chennai, India

 $08\ 2019-05\ 2022$ 

Mumbai, India

#### **SKILLS**

• Mathematics

• Advance Statistics

• Python

• SQL & NoSQL

• GraphDB

R

• Web scrapping

• Power BI

• Pandas

• Numpy

• Feature Engineering

• Exploratory Data Analysis (EDA)

• Machine Learning

• Scikit-Learn

• Time Series

• Deep Learning

Tensorflow

• Pytorch

• Natural Language Processing

• A

• Computer Vision

• Artificial Intelligence

• Generative AI

• Langchain

MLOpsFlask

• MLflow

• Data Vesion Control

(DVC)
Airflow

• DagsHub

• GitHub

Docker

Cloud Services

• Large Language Models (LLMs)

• HuggingFace

Continuous Learner

• Good Communication Skills

#### **INTERNSHIPS**

#### Grahun | Data Science Intern

08 2024 - current

• Worked on developing end-to-end recommendation systems leveraging NLP techniques, Generative AI, and orchestrating LLMs (LLama 3.1, 3.2), BERT for personalized user experiences.

• Built and deployed knowledge graphs with Neo4j to structure complex relationships, utilizing Hugging Face for embedding and other LLM implementations.

• Enhanced recommendation pipeline through advanced NLP and multi-agent GenAI solutions, incorporating Vector Databases and Knowledge Graphs for scalable insights.

### SpectoV Pvt. Ltd. | AI-ML Engineer Intern

 $04\ 2024 - 08\ 2024$ 

• Spearheaded AI-driven gesture recognition models with TensorFlow and PyTorch, achieving 98.93% accuracy in real-time conversion of gestures to audio, enhancing assistive technology accessibility.

• Optimized and quantized models to TFLite, enabling seamless deployment on edge devices like AR glasses with Coral-TPU for efficient, low-latency processing.

• Collaborated with cross-functional teams to advance AR/VR solutions, creating bidirectional AI systems for audio-to-gesture translation, driving inclusivity in immersive environments.

#### **PROJECTS**

# Body Mass Index Prediction from Face Images | Python, EDA, Feature Engineering, Feature Selection, ML

• Designed and deployed an automated BMI prediction system using deep computer vision, achieving a 97.87% accuracy with a Random Forest model and ensembling techniques.

• Executed an end-to-end workflow from web scraping to feature engineering, implementing modular code with custom exception handling and logging for robust performance.

with custom exception handling and logging for robust performance.

• Developed and deployed a Flask API with a custom UI on AWS App Runner, utilizing Docker and GitHub Actions for CI/CD to ensure seamless and efficient pipeline automation.

# $\underline{\textbf{SmartCry: AI-Based Infant Discomfort Classification}} \mid \underline{\textbf{Librosa, TensorFlow, Visualization, ML, DL}}$

Developed and deployed an AI-based infant discomfort classification system using audio data, leveraging Librosa for advanced feature extraction and TensorFlow for model training.
Implemented multiple ML models, including SVM, Naive Bayes, Random Forest, KNN, and LSTM, with

Implemented multiple ML models, including SVM, Naive Bayes, Random Forest, KNN, and LSTM, with LSTM achieving a 94% accuracy for precise discomfort classification.

• Conducted comprehensive data preprocessing, model evaluation, and hyperparameter tuning, demonstrating strong skills in audio data handling, machine learning, and deep learning.

#### EXTRACURRICULAR

## $NSS (National Service Scheme) \mid \underline{\mathit{Volunteer}}$

• Participated in community service activities such as tree planting, road cleaning, and blood drives, while teaching underprivileged children and demonstrating leadership and social responsibility.

#### **CERTIFICATIONS**

- Data Science Master PW Skills
- Complete Generative AI with Langchain Udemy
- Secured first place in DATA-THON during Techno-VIT
- Azure AI Document Intelligence Microsoft
- PowerBI certification Udemy
- Google Analytics Certification
- Hackathon Open Weaver