AMBAR KUMAR

Patna, Bihar • 9955307772 • ambarkumar1012@gmail.com
linkedin.com/in/ambarkr1012 | github.com/AK1012-tech

CAREER OBJECTIVE

I am delighted to describe myself as a passionate individual with a great love of data science, machine learning, and deep learning. I am dedicated to use my skills to spur innovation and address difficult problems. I am eager to learn and implement the subtle depths of these cutting-edge fields.

EDUCATION

Vellore Institute of Technology, Chennai **Sept 2020 - June 2024**

Bachelor of Technology in Computer Science with AI and ML - GPA: 8.56

The Emerald Heights International School, Indore **Aug 2017 - May 2019**

Higher Secondary PCM with Information Practices - 94.8%

TECHNICAL SKILLS

- **Programming Language -** Python, C++, Java
- **Database -** MySQL, ChromaDB
- **BI Tool -** Power BI, Excel
- **ML-** Regression, Classification, Clustering
- **DL -** ANN, CNN, RNN, NLP, LLMs, RAG
- **Statistics -** Hypothesis Testing, Time Series
- Pandas, NumPy, Scikit-learn, Matplotlib
- TensorFlow, Keras, XGBoost, Streamlit
- NLTK, OpenCV, Transfer Learning
- Data Cleaning, Cross-validation, A/B testing
- Feature Engineering, Ensemble Models
- LangChain, OpenAI, LLAMA, HuggingFace

EXPERIENCE

Machine Learning Intern, Teachnook **Feb 2024 - April 2024**

- Implemented natural language processing techniques for sentiment analysis and text classification projects.
- Enhanced machine learning model accuracy by implementing advanced algorithms and feature engineering techniques.
- Developed efficient data preprocessing pipelines for faster model training and improved performance.

PROJECTS

Intelligent Legal Document Assistant | Github **May 2025**

- Developed an intelligent legal Q&A assistant using Retrieval-Augmented Generation (RAG) with LLAMA3 via Groq, enabling users to query uploaded legal PDFs and scraped web content.
- Deployed a Streamlit app with PDF upload, URL scraping, and dynamic QA generation
- Tools: LangChain, Groq API (LLAMA3), ChromaDB, MiniLM, Streamlit, PyPDF2, BeautifulSoup

Advancing Multi-Disease Detection in Tomato Plants | Github **Jan 2025**

- Reframed traditional disease classification into an object detection task using YOLO models, achieving up to 96.3% mAP with YOLOv9 on a custom 9-class PlantVillage dataset.
- Developed a hybrid background removal method combining GMM, morphological operations, and GrabCut for precise disease region isolation.
- Tools used: YOLO, VGG16, ResNet101, TensorFlow, OpenCV, CNNs, GMM, GrabCut

Adventure Works Dashboard | Github **March 2025**

- Built interactive dashboards to track sales, customer trends, and regional performance.
- Used DAX and slicers for dynamic filtering and detailed analysis. Optimized data model with calculated columns and KPIs for actionable insights.
- Tools: Power BI, DAX, Excel, Power Query

CERTIFICATES

- Machine Learning and Deep Learning (Udemy) - hands on python in Machine Learning and Data Science
- Microsoft Power BI for Business Intelligence (Udemy) - Data Analysis using power query and dashboards
- MySQL training (IIT Bombay) - attended training session on SQL by IIT professors and passed skill tests
- Data Structures (C++) (Coding Ninja) - learned basics of DSA with hands-on practice
- International Round Square - Leadership skill, volunteered in a camp that provided free eye checkup