

SUBHADIP HENSH

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Portfolio

PROFESSIONAL SUMMARY

Data Science and AI graduate with M.Sc. in Computer Science and Advanced Certification in Data Science & AI (IIT Roorkee × Microsoft). Proficient in end-to-end ML pipelines, deep learning models, and production-grade RAG systems. Independently architected and deployed complex NLP applications using Python, LLMs, vector databases, and modern retrieval frameworks. Seeking a Data Science / AI role to deliver measurable business impact.

TECHNICAL SKILLS

Languages: Python, SQL

Machine Learning: Scikit-Learn, XGBoost, Feature Engineering, Model Evaluation

Deep Learning: TensorFlow, PyTorch, Keras, CNN, LSTM

Generative AI & LLM: LangChain, LangGraph, Hugging Face Transformers, Prompt Engineering, RAG Pipelines, Qdrant, BM25, Cross-Encoder Reranking

Time Series: ARIMA, SARIMA, Prophet

Databases: MSSQL, MySQL, MongoDB

Data & Visualization: Pandas, NumPy, Matplotlib, Seaborn, Power BI

Frameworks & Tools: FastAPI, Next.js, Jupyter Notebook, Git, GitHub, Kaggle, DVC, Azure, GCP

PROJECTS

ResearchPilot – Production RAG System for ArXiv Papers *

Jan 2025 – Present

- Tech:** Python, FastAPI, Next.js, Qdrant, BGE Embeddings, BM25, Cross-Encoder, Multi-LLM, PyMuPDF
- Built a full-stack RAG pipeline ingesting ArXiv ML/AI papers, storing semantically chunked embeddings in Qdrant; deployed FastAPI backend + Next.js frontend to production.
- Implemented hybrid BM25 + dense retrieval with RRF and cross-encoder reranking, improving retrieval precision over 300+ papers.
- Engineered a strict linear fallback mechanism across 4 LLMs for high availability (Primary: GLM-5.1 → Fallbacks: Qwen 3.5 9B, LLaMA 3.3 70B, Qwen 2.5 Coder 7B).

FruitNetSH – Pomegranate Disease Classifier *

Nov 2025

- Tech:** Python, TensorFlow, Keras, EfficientNetB0, TensorFlow.js
- Built an EfficientNetB0-based classifier detecting 5 pomegranate leaf diseases (~99% train / ~98% val accuracy); deployed as a web app with TensorFlow.js for in-browser inference.

Walmart Sales Forecasting *

Oct 2025

- Tech:** Python, Statsmodels, Prophet, TensorFlow (LSTM), XGBoost, Scikit-Learn
- Built a multi-model forecasting pipeline predicting 12-week sales across 45 Walmart stores; benchmarked ARIMA, SARIMA, Prophet, LSTM, and XGBoost – SARIMA and Prophet delivered the best seasonal forecasts.

Netflix Recommendation System *

Sep 2025

- Tech:** Python, SVD, Scikit-Learn
- Developed a collaborative filtering engine using SVD matrix factorization to surface personalized content suggestions on a Netflix dataset.

EDUCATION

Visva-Bharati University

M.Sc. in Computer Science – CGPA: 6.67

Jul 2022 – Jul 2024

Birbhum, West Bengal, India

Bankura Sammilani College

B.Sc. in Computer Science – CGPA: 9.21

Jun 2019 – Jun 2022

Bankura, West Bengal, India

PROFESSIONAL DEVELOPMENT

iHub DivyaSampark, IIT Roorkee × Microsoft *

Feb 2025 – Mar 2026

Advanced Data Science & Artificial Intelligence Program

India

- Industry-focused certification covering ML, Deep Learning, Generative AI, LLMs, and RAG systems, delivered with Microsoft & IntelliPaat.

CERTIFICATIONS

- HackerRank SQL (Advanced) – 5★ Badge
- HackerRank Python
- Kaggle – Intro to Deep Learning
- Kaggle – Intermediate Machine Learning
- Kaggle – Intro to Machine Learning
- Kaggle – Pandas
- Kaggle – Python