Abhishek Kumar

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Education

Indian Institute of Information Technology, Nagpur　　　　2021 – 2025
Bachelor of Technology in Computer Science Engineering　　　　**CGPA: 8.50**

Relevant Coursework

- Machine Learning
- Deep Learning
- Statistics for AI & DS
- DBMS
- Artificial Intelligence
- Large Language Model
- NLP
- OOPS
- DSA
- Computer Networking
- OS
- Software Engineering

Work Experience

Mastersoft ERP Solutions Pvt.Ltd　　　　December 2024 – Present
AI/ML Intern

- Analyzed real-world student data to identify retention patterns and implemented machine learning and deep learning models (model analysis) to predict student drop-off, achieving a 15% improvement in predictive accuracy.
- Deployed multiple AI-powered chatbots and autonomous agents, including a FAISS-backed, retrieval-augmented bot capable of extracting exact user manual content inline images, enabling high-accuracy, document-grounded responses.
- Developed a deep learning–based Facial Recognition Attendance system API using Python and Flask, containerized across 8 Docker instances behind an Nginx reverse proxy for real-time, scalable, and fault-tolerant deployment.
- Automated About, FAQ/help content generation with web scraping, Ollama, and fine-tuned QLoRA models.
- Built a scalable RAG system with automated document life cycle management including caching and re-ingestion.

Projects

Stock Predictor Pro　　　　March 2024 – April 2024
Python, Machine Learning, Statistics

- Analyzed 5 years of stock data using Monte Carlo simulations to predict stock behavior and evaluate Value at Risk.
- Developed simulation-based forecasting model, achieving 63% accuracy in the accuracy of stock behavior predictions.
- Improved prediction reliability by implementing VaR analysis, leading to a 15% reduction in financial loss estimates.

Ocular Health Classifier　　　　March 2024 – April 2024
OpenCV, Machine Learning, Deep Learning

- Implemented and evaluated multiple CNN architectures—including VGG16, VGG19, LeNet, AlexNet, ResNet and DenseNet—for automated eye disease classification, achieving up to 96% accuracy in image-based diagnostics.
- Further improvement by leveraging an ensemble approach(Sequential & DenseNet) combining multiple model's strengths.

DISHA: Conversational IIITN Chatbot　　　　Oct 2024 – Nov 2024
AI, Fine Tuning-LLMs, RAG

- Developed a multilingual chatbot by fine-tuning LLMs and RAG for real-time assistance on the IIITN website.
- Built a scalable retrieval-based framework to deliver accurate and contextually relevant responses based on the query.
- Led end-to-end development encompassing data collection, preprocessing, and model fine-tuning, resulting in enhanced user accessibility, faster response times, and improved efficiency in automated query resolution.

License and Certifications

- 2023 Amazon ML Summer School —Link
- 2023 Data Analysis with Python(IBM) — Link
- 2023 Machine Learning with Python(IBM) — Link
- 2024 Fundamentals of Deep Learning(NVIDEA) — Link
- 2024 NLP Applications(NVIDEA) — Link

Technical Skills

Languages: Python, SQL, Java, C/C++, HTML/CSS, JavaScript.
Technologies/Frameworks: Flask, Excel, Tensorflow, Docker, DVC, mlflow, LangChain, Power BI, Git/GitHub, APIs.
Databases: MySQL, Pinecone, FAISS.