

# Abhishek Kumar

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## Education

**Indian Institute of Information Technology, Nagpur**  
Bachelor of Technology in Computer Science Engineering

2021 – 2025  
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**  
*AI/ML Intern*

December 2024 – Present

- Analyzed a real-world student dataset 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 and deployed Facial Recognition Based 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(LLM), and fine-tuned QLoRA models.
- Built a scalable RAG system with automated document life cycle management including caching and re-ingestion.

## Projects

**Stock Analysis and Prediction**  
*Python, Deep Learning, Statistics, LLM, Time Series Forecasting*

March 2024 – April 2024

- Built and deployed a hybrid LSTM and ARIMA forecasting model on a stock dataset, with achieving accuracy 70%.
- Engineered and analysed EMA, SMA, RSI and CAMD indicators to capture both momentum and mean-reversion signals, improving model responsiveness to market regime shifts and delivering more stable trend forecasts.
- Integrated a LLM feedback loop to automatically fine-tuned indicator parameters enhancing stakeholder confidence.

**Ocular Health Classifier**  
*OpenCV, Machine Learning, Deep Learning*

March 2024 – April 2024

- 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**  
*AI, Fine Tuning-LLMs, RAG*

Oct 2024 – Nov 2024

- 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 by doing model analysis.

## 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(NVIDIA) — [Link](#)
- 2024 NLP Applications(NVIDIA) — [Link](#)

## Technical Skills

**Languages:** Python, SQL, Java, C/C++, HTML/CSS, JavaScript.

**Frameworks:** Flask, Tensorflow, LangChain, LangGraph, CrewAI, Nginx.

**Tools:** Git/GitHub, Postman, CI/CD (GitHub Actions), Google Colab, Excel, AWS (EC2), Docker.

**Databases:** MySQL, Pinecone, FAISS.