Amanpreet Ahluwalia

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PROFILE

AI/ML Engineer with 5+ years of experience across AI engineering, data engineering and enterprise software development. Proven track record in building GenAI applications (NLP, RAG, ML Pipelines) for risk analytics, automation and intelligent assistants. Delivered full-stack AI systems and deployed real-time AI tools using cloud platforms and modern ML frameworks.

Strong background in LLMs, prompt engineering and vector search with full-stack development and data analysis skills.

WORK EXPERIENCE

AI Full-Stack Developer Intern | GBCS Group   **June 2025 to Present**

- Built AI functionalities powering React UIs for client-facing tools using LangChain, FAISS and Hugging Face.
- Conducted experimentation with LLM chains and tool selection for RAG applications.
- Explored risk scoring metrics, automated red-flag summaries and business validation workflows to support audit risk assessment use cases.

AI/ML Engineer Intern | 3NS.AI, London   **Feb 2025 to May 2025**

- Deployed Gen AI extraction pipelines using LLaMA, DeepSeek, Mistral to automate structured data extraction from Legal and financial documents, improving audit report accuracy by 40% while reducing manual effort by 60%.
- Developed due diligence tool using LlamaIndex + LangChain for real time business metric retrieval and report generation.

IT Specialist | Bristlecone India Ltd. (A Mahindra Group Company), India   **Aug 2019 to Oct 2024**

- Developed AI-powered analytics dashboards, integrating Google APIs to automate EDI workflows, improving decision-making efficiency by 25%.
- Built ML-driven models for cash flow forecasting and intercompany risk prediction.
- Led automation of supply chain and finance workflows in ERP environments (SAP, NetSuite, QuickBooks etc.), deploying ML-based optimisations.
- Crafted Data Modelling and reporting across distributed teams enabling 30% faster decision-making for stakeholders. Built pipelines for structured and semi-structured data ingestion, transformation and analysis.

SKILLS

AI Engineering Machine Learning, NLP, Computer Vision, Retrieval-Augmented Generation, Deep Learning, Generative AI, Reinforcement Learning, MLOps, Data Analytics, Responsible AI

- **Programming Languages**: Python, SQL, JavaScript, Java, C#, R.
- **AI/ML Frameworks**: Scikit-learn, XGBoost, PyTorch, TensorFlow, Keras, Transformers.
- **LLM & RAG Tools**: LangChain, FAISS, LlamaIndex, LangGraph, Pinecone.
- **Data Analytics**: Pandas, NumPy, Matplotlib, Seaborn, Feature Eng., RStudio, MATLAB.
- **MLOps**: Gradio, MLflow, Supabase, Docker, Flask, FastAPI, AWS Sagemaker, REST APIs.
- **Cloud**: PostgreSQL, MongoDB, SQLite, Streamlit Cloud, AWS, Azure.
- **IDEs**: Vision Studio, PyCharm, VSCode, Jupyter Notebook, Google Collab, Code spaces.
- **Tools**: Unity, GitHub, Salesforce, Jira, Postman, Jenkins, ROS Noetic, NetLogo.

- **10+ Spot Awards for exceptional team performance at Bristlecone India Ltd**.
- **Recognised for achieving a 5-year career milestone with consistent contributions.**
- Mentored 50+ students during NVIDIA workshops to debug and optimise real-time AI models.
- Collaborated with cross-functional teams to align GenAI tools with audit workflows.

EDUCATION

- **Master of Science in Artificial Intelligence and Robotics** – *University of Hertfordshire, UK* **2024 - 2026**
- **Postgraduate Diploma in IT Management –** *Symbiosis University, Pune* **2019 - 2021**
- **Bachelor of Information Technology Engineering –** *MIT, Pune* **2014 - 2018**

PROJECTS

Chat with Your PDFs (RAG-Based Assistant)
➤ Built Groq-based RAG pipeline to allow users to query PDFs using vector stores and LLMs.

PV Output Prediction
➤ XGBoost regression model to forecast PV output based on real-time weather and solar radiations alongside tracking experiments via MLflow.

AutoApplyX – AI Job Search Agent
➤ LangChain resume evaluator and job scraper using semantic search and PDF parsing.

AI Memoir Co-Writer
➤ Interactive LangGraph agent that rewrites, reflects and complies memoirs using LangChain.

Health Insurance Cost Predictor
➤ Regression model predicting insurance premiums based on user lifestyle.

Business Audit Report Generator
➤ Automated audit report generation using LLMs + real-time data extraction.

Diabetes Prediction System
➤ Designed a classification model achieving 93% accuracy for diabetes prediction using BMI.
➤ Optimised preprocessing pipelines, reducing data handling time by 35% in PyTorch.

CERTIFICATIONS

HuggingFace AI Agents Course **(2025)**
➤ Completed GAIA benchmark for autonomous AI agents, developing a LangChain-based AI agent using LLMs and tool use.

NVIDIA Fundamentals of Deep Learning **2024** & Applications of AI for Predictive Maintenance **2025**
➤ 98% accuracy on image classification tasks using CNNs with optimised pipelines.
➤ Built predictive maintenance systems with LSTM & Autoencoders using GPU RAPIDS.

Microsoft Certified: Azure AI Fundamentals and Responsible AI Hackathon **(2025)**
➤ Attended Microsoft AI Conference and built AI dashboards using PowerAutomate and PowerFabric.

BCG GenAI: Data Scientist **(**Forage **|** Jan 2025**)**
➤ Developed an AI-powered financial chatbot interpreting complex financial data from 10-K and 10-Q reports.