Ashish Patidar

Data Scientist - GenAI CoE, 2x Microsoft Certified

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Education

- **Institute of Engineering And Technology, DAVV** — Indore
  Bachelor of Engineering (Electronics and Telecommunication); GPA: 7.64 — *Jul 2016 - May 2020*

Skills Summary

- **Languages**: Python, SQL, HTML/CSS
- **Competencies**: Generative AI, Machine Learning, AI Assurance, Data Science, Deep Learning, Feature Engineering, NLP, CV basics, Data Analysis, Data Extraction, Prompt Engineering, RAG
- **Tools & Frameworks**: LangChain, Microsoft Azure ML, LLMs, PyTorch, Jupyter Notebook, Microsoft Copilot Studio, Azure Document Intelligence, Azure AI Search, Microsoft Graph API, FastAPI, VS Code, Git, MongoDB
- **Knowledge of**: Agentic AI, Deep Research, LangGraph

Work Experience

- **EXL Digital** — Remote
  Data Scientist - GenAI CoE — *Jan 2024 - Current*
  - **AI-Powered Complaint Management Solution**: Led the development of an Azure-based solution for a multinational insurance company, utilizing Chain-of-Thought (CoT) prompting on GPT-4o to automate the generation of draft responses for complaint requests and inquiries, reducing response time by **80**%.
  - **Private Azure Services Implementation**: Developed and deployed a solution on the Azure Function App using exclusive private Azure services, ensuring secure cloud architecture and data protection.
  - **GenAI Workflow Automation**: Explored the design of workflow automation in Copilot Studio using Power Automate, integrating SharePoint for document input and Azure services (Blob storage, Azure Document Intelligence, AI Search and Azure OpenAI) via APIs to optimize client use cases.
  - **MS Copilot Studio Development**: Developed a custom Copilot chatbot to efficiently handle and respond to internal product queries, streamlining communication and enhancing operational efficiency, leading to a **20**% increase in employee productivity.

- **Cognizant** — Pune
  AI/ML Research Engineer — *Jun 2022 - Dec 2023*
  - **Gen AI Development**: Researched and developed a Python backend to generate multiple structured code files for specific frameworks using GPT-3.5-Turbo/GPT-4 on the LangChain framework, indexing vector embedding with ChromaDB and applying prompt engineering. Also built APIs using FastAPI and MongoDB.
  - **Large Language Models**: Built **5+** prototypes for domain-specific use cases by fine-tuning open-source LLMs (e.g., LLaMa, Falcon) using QLoRA, or using quantized models locally with Retrieval Augmented Generation (RAG).
  - **Generative AI**: Created POC for Generative AI Assurance using **15+** metrics for various text and image generation tasks.
  - **Object detection**: Developed POC for detecting objects (subimages) at various resolutions within another image.
  - **Video Analytics Assurance**: Implemented video classification (action recognition) model using PyTorch. Explored ML Security tools for evaluating, defending and verifying models against adversarial threats. Also implemented Grad-CAM for video analysis.
  - **Time Series Forecasting Assurance**: Conducted research and developed time series forecasting models. Evaluated the models and completed POC on explainability (XAI).

- **Cognizant** — Hyderabad
  Automation Engineer — *Nov 2020 - Jun 2022*
  - **Award**: Recognized with the **#CognizantCheers Gold** award for achieving exceptional results in implementing a long-term initiative that provided significant cost/productivity savings or business impact to Cognizant.
  - **Library Content Data validation**: Developed a utility to analyze datasets, identify discrepancies, and find closest matches, reducing manual QA team's time consumption by **90**%. Received client appreciation for solution effectiveness.
  - **Data Extraction**: Designed functions to create dynamic datasets from UI and parse XML, enabling the extraction and real-time update of data via Azure APIs. This end to end automation reduced processing time by **50**%.
  - **Robotic Process Automation**: Created high-quality automation scripts using the Robot Framework (Python), optimizing execution time.

- **Cognizant** — Pune
  Intern — *Jan 2020 - May 2020*
  - **API Testing**: Designed functional test cases using Selenium along with practical training in Core Java, SQL, HTML, CSS.

Data Science Projects

- **Product Sentimental Analysis**: Developed NLP models for classification of text sentences into sentiments using word embedding. Used Text data augmentation technique for extreme unbalanced datasets.
- **Mobile price prediction**: Developed classification models for predicting price range of mobile phones using 20 features of phone. Build models with Pipeline using Column transformer and Function transformer and also without Pipeline along with EDA. Selected the best model using GridSearchCV and also used Feature selection techniques.
- **Demand Forecasting (JOB-A-THON)**: Got 33rd rank overall in 7106 participants. Developed regression models to forecast the demand.
- **Sports Image Classification**: Designed CNN(Convolutional Neural Network) model using transfer learning for classifying sports images into multiple classes.

Certificates

- **Microsoft** Certified Azure Data Scientist Associate
- **Microsoft** Certified Azure AI Fundamentals
- Prompt Engineering for AI Engineer - **ADaSci**
- Deep Learning A-Z™: Hands-On Artificial Neural Networks - **Udemy**
- Machine Learning A-Z™: Hands-On Python In Data Science - **Udemy**
- Feature Engineering for Machine Learning - **Udemy**