

Dipak Patil

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Professional Summary:

Innovative AI/ML developer with a proven track record in developing cutting-edge AI solutions, specializing in risk assessment models, virtual agents, and automation tools for financial services, HR, and security domains. Expert in leveraging Generative AI, Large Language Models (LLMs), and advanced data processing techniques to drive significant improvements in accuracy, efficiency, and security across various projects. Adept at translating complex technical concepts into actionable insights, fostering collaboration, and ensuring the successful integration of AI technologies within business operations. Strong technical proficiency in Python, SQL, NLP, RAG, and OCR, with a commitment to continuous learning and delivering impactful AI-driven results.

Experience:

AI/ML Lead Engineer:

HCL Tech, Noida - Full-time

Jun 2024 - Present

- **Developed Advanced Risk Assessment Models:** Led the development of cutting-edge risk assessment models for quality assurance in banking, utilizing Generative AI, Python, and Large Language Models (LLMs). These models were successfully deployed for UK-based banks, including the Royal Bank of Scotland and the NatWest Group, resulting in significant improvements in the accuracy and reliability of financial risk analysis.
- **Pioneered AI-Based Screening Agents for HR:** Developed an AI-based agent specifically designed for the screening round of the recruitment process in the HR department. This agent enhanced the efficiency and effectiveness of candidate evaluation, streamlining the recruitment process.
- **Contributed to Security Policy Automation:** Played a key role in developing a virtual chatbot for security policies using a Retrieval-Augmented Generation (RAG) based approach for real-time updates. This automation improved the management and responsiveness of security policies.
- **Leveraged Enterprise Security Guardrails in GenAI Projects:** Successfully implemented and utilized security guardrails, including Entra, Purview, Defender, Intune, and Nemo, within Generative AI applications, projects, and models. This ensured that robust security practices were integrated into AI-driven initiatives.
- **Developed Virtual Agents with GCC Dialogflow and Twilio API:** Developed a virtual agent using GCC Dialogflow integrated with the Twilio API, providing enhanced communication capabilities and improving user interaction.
- **Facilitated Innovation Through Effective Communication:** Articulated complex technical concepts to non-technical stakeholders, fostering collaboration and driving innovation. Continuously integrated new AI techniques to maintain a competitive edge and deliver results aligned with organizational goals.

System Engineer:

Infosys Limited, Pune - Full-time

Dec 2020 - Jun 2024 (3 years 6 months)

- **Developed Advanced Process Chatbots:** Engineered sophisticated process chatbots for internal projects, including major clients like AT&T and LUMEN, and a highly efficient Process ChatBot - Personal PDF Assistant for multiple teams using OpenAI embeddings, OpenAI API, GPT 3.5 Turbo, FAISS, Langchain, and Streamlit, enhancing automation, productivity, and operational efficiency.
- **Developed Proctoring ID Authentication System:** Worked on a development project for proctoring, focusing on ID authentication using OCR, enhancing the accuracy and reliability of identity verification processes.
- **Created Voice Authentication System:** Designed and implemented a cutting-edge voice authentication system using Convolutional Neural Networks (CNN) and Python frameworks like FastAPI, significantly improving security and user verification processes.

- **Established and Monitored Key Performance Indicators (KPIs):** Set up and continuously monitored KPIs to track performance metrics, driving informed decision-making and process improvements.
 - **Conducted Regular Audits and Reviews:** Specialized in penalty estimation and mitigation, ensuring compliance and minimizing risks through thorough and regular audits.
 - **Applied Exploratory Data Analysis Techniques:** Utilized exploratory data analysis techniques on order data, enabling proactive problem-solving and process optimization.
 - **Contributed to Team Success:** Played a pivotal role in team success through effective performance monitoring and project management optimization, fostering a collaborative and efficient work environment.
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Skills:

- **Languages:** Python, SQL
 - **Frameworks and Platforms:** Langchain, FAISS, Pandas, NumPy, Matplotlib, Seaborn, Scikit Learn, NLTK, Jupyter Notebook, Google Colab, NLP, LLaMA2, Hugging Face Transformer, Streamlit.
 - **Technologies:** Large Language Models (LLM), Optical Character Recognition (OCR), Retrieval Augmented Generation (RAG), AI Guardrails, GCP's Google Cloud Console - Dialogflow.
 - **Tools:** OpenAI Products, Financial Sector Crisis Management, Financial Crimes Investigations, Artificial Intelligence (AI), Research Skills, Chatbot Development.
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Education:

- **Bachelor of Engineering (BE), Electronics and Telecommunications Engineering**
Savitribai Phule Pune University
07/2020 - 05/2023 **CGPA: 8.48**
 - **Diploma in Electronics and Telecommunication**
Government Polytechnic Nashik
06/2017 - 06/2020 **Percentage: 86.20%**
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Certifications:

- **Advanced certification in Full-stack Data science and AI**
From IIT Guwahati
05-2023 - 01/2024
 - **Possibilities with Gen AI and LLMs by Microsoft**
By Infosys Limited
01/2024 – 02/2024
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Interests:

- Staying updated with technological advancements in AI
- Solving real-world problems through innovative AI solutions