# Karan Rana

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# **Career Objective**

Dynamic and results-driven Generative AI/LLM/NLP Engineer with proven expertise in Python, AI/ML, and advanced language model implementations.

Seeking a challenging opportunity where I can leverage my deep understanding of cuttingedge technologies to develop impactful AI solutions that exceed organizational goals.

### **Proven Expertise**

- Langchain Development: Integrated GPT-4 with Retrieval-Augmented Generation (RAG), custom tools, and agents.
- LLM Frameworks: Experience with LangGraph, CrewAI, and Autogen for building advanced language models.
- Backend API Integrations: Skilled in integrating LLM APIs like GPT-4, Claude3, LLama3, Mistral, Google Gemini, and Groq models, with Langsmith for evaluation.
- Model Fine-Tuning: Expertise in fine-tuning open-source models like Mistral-7b, LLAMA3.1, LLAMA3.2.
- Vector Databases: Hands-on experience with Pinecone, FAISS, ChromaDB, QDrant, and Weaviate.
- LLM Deployment: Deployed models using Amazon Bedrock, SageMaker, EC2, and LangServe.
- Chatbot Development: Implemented LLM-based chatbots on Slack, WebEx, WhatsApp, Telegram, and Discord.
- Advanced AI Techniques: Proficient in Chain-of-Thought, reAct, and iterative prompting for improving LLM results.
- Frameworks: Integrated LLMs with FastAPI, Streamlit, Flask, and Django.
- NLP Tasks: Experienced in sentiment analysis, text summarization, text classification, and TTS/STT generation.
- Predictive Modeling: Developed bots for forecasting forex prices using data analysis and predictive modeling.
- Computer Vision: Proficient in image segmentation, object detection, Stable Diffusion, and Generative Adversarial Networks (GANs).

### **Professional Experience**

# **Companies As Software Developer Expert I worked with:**

AiInfox Pvt. Ltd. — Mohali Ariespro Technologies Pvt. Ltd. — Chandigarh

Theta Academy — Chandigarh Netmax Technologies — Chandigarh

- Developed Python-based applications for data science and machine learning tasks.
- Implemented Django Framework for web development, integrating SQL databases for managing complex workflows.

# **Education**

### B.Tech (CSE)

Himachal Pradesh Technical University — Himachal Pradesh 07/2018 - 06/2022

#### **Data Science Certification**

Netmax Technologies — Chandigarh 03/2022 - 07/2022

### **Technical Skills**

- Programming Languages: Python, C++, JavaScript, SQL, HTML, CSS
- Frameworks: Django, Flask, FastAPI
- AI/ML Libraries: TensorFlow, PyTorch, Scikit-learn
- Databases: MySQL, PostgreSQL
- Tools: Docker, Kubernetes, AWS, Azure
- CRM: HubSpot Champion with expertise in inbound marketing and CRM/CMS Hubs
- AI Models: Open-Ai, Meta Llama, Mistral.

## **Projects**

## **Global Workforce Management (09/2023 - Present)**

Django-based project for managing human capital.

### Help My House (01/2023 - Present)

Utility management project to reduce electricity losses, using machine learning models.

# **Additional Skills**

HubSpot CRM Champion: Former Inbound Marketing Strategist for a Platinum HubSpot agency. Highly trained in CRM, Marketing, and CMS Hubs, specializing in portal optimization and website conversion audits.

Website Development: Experience in building robust backend systems and deploying applications using Docker and Kubernetes on cloud platforms.

### Languages

Hindi: Professional Working Proficiency
English: Professional Working Proficiency
Punjabi: Limited Working Proficiency