Dipesh Paul

Machine Learning Engineer

www.dipeshpal.in

About Me

Hi, I'm Dipesh Paul. A passionate Machine Learning Engineer building intelligent solutions with AI and Machine Learning.

Contact

- 📞 +91 896 277 5625
- ✉️ dipeshpal17@gmail.com
- 📍 Indore, India
- github.com/Dipeshpal

Experience

(Dec 2023 – Present)
SENIOR MACHNINE LEARNING ENGINEER
Systango, Indore
- Worked on various GenAI projects
- ML Team handling

(Feb 2023 – July 2023)
SENIOR MACHNINE LEARNING ENGINEER
Zdaly, Banglore
- Worked on ML and DL based project

(Jan 2022 – Jan 2023)
MACHINE LEARNING ENGINEER
GsLab, Pune
- Worked on ML and DL based project

(Aug 2019 – Jan 2022)
MACHINE LEARNING ENGINEER
Calsoft, Pune
- Worked on ML, DL and python based project

(Jan 2019 – July 2019)
MACHINE LEARNING INTERN
Calsoft, Pune
- Worked on various ML and DL POC and Projects.

Skills

- GenAI
- Machine Learning
- Deep Learning
- LLM OpenAI, Deepseek, Llama, Mistral etc.
- LLM Finetuning
- OpenAI Agent SDK
- PydanticAI
- Langchain
- Tensorflow
- Keras
- Pytorch
- Scikit Learn
- Transformers
- Ollama
- OpenCV
- NLP
- SFT, RLHF, Peft etc.
- Docker
- Technical Leadership
- Jira
- Git
- ML system design
- Project Ownership
- Innovation Adoption
- Research Translation
- Architecture Designing

Projects

Multi-Agent Procurement Agent
Built a Multi-Agent platform to streamline procurement, featuring LLM-powered chatbot portals for support, order analysis, and data visualization. It collects user requirements and routes requests to suitable vendors.
OpenAI's GPT-4o, GPT-4o-mini, Weaviate DB, Postgres, FastAPI, OpenAI Agent SDK, PydanticAI

Automated Customer Support LLM Powered
Engineered an AI-powered customer support system that intelligently connects customers to specialized bots and agents, providing 24/7 query resolution and support.
OpenAI's GPT-4o, FastAPI, Weaviate vector DB

LLM Powered Productivity Bot
Built a comprehensive platform allowing users to connect and sync data from applications like Gmail, Calendar, and Outlook. The system delivers actionable insights, recommendations, and cross-app search capabilities using embedding models and similarity searches.
OpenAI's GPT-4o, FastAPI, Weaviate vector DB, AWS Bedrock

LLM Chat Suggestion
Developed an intelligent chat suggestion system that analyzes ongoing conversations and offers contextually relevant message suggestions to users, enhancing communication efficiency.
Finetuning LLAMA-3.1, Openhermes, Deepseek using QLORA on Distributed training, Peft, Ollama, FastAPI, Redis, Weaviate vector DB

Education

RGPV UNIVERSITY

Bachelor of Engineering in Computer Science, 2019. Acropolis Institute of Tech. & Research, Indore

M.P. BOARD

Higher School, 2015

M.P. BOARD

Secondary School, 2013

Language

- English
- Hindi

Language

- English
- Hindi
- Bengali

Certifications

- Machine Learning: Stanford University (96.47%)
- Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning (99.28%)
- Supervised Machine Learning (Regression and Classification): DeepLearning.AI, Stanford University (100%)
- Python Data Structures: University of Michigan (98.40%)

Awards

- Rising Star, 2020, Calsoft Pvt. Ltd.
- Praise, 2024, Systango

Product Chat Agent

Created an advanced chatbot that leverages large language models to provide detailed product information and streamline purchase processes based on natural language user prompts.

Python, Langchain, OpenAI, FastAPI, Prompt Engineering

Price Analysis with Scraping

Built a comprehensive price analysis system that scrapes data from global E-commerce and OEM websites to inform pricing strategies for computing devices. Implemented machine learning models for accurate price prediction.

Python, FastAPI, AI/ML, Tensorflow, Jenkins, Docker, Scrapy, Transformers

Automation of Virtualization

Developed a PaaS tool that automates virtualization solutions, enabling customers to effortlessly create virtual machines and deploy applications. The platform includes robust monitoring, troubleshooting capabilities, and AI-based price prediction.

Python, FastAPI, AI/ML, Tensorflow, Jenkins, Docker, Transformers

Ticket Analyzer

Automated ticketing processes using advanced machine learning techniques. Utilized NLP and Wikipedia-trained ULMfit Fastai models to analyze tickets and intelligently determine appropriate assignees.

Python, Kafka, Docker, FastAPI, AI/ML, Fastai

Avatar Generator

Built an avatar generation system for portfolio faces, trained on a dataset of approximately 143,000 human and cartoon images. Implemented various neural network architectures, including Deep Convolutional GANs (Style GAN), CNN, and UNet.

Python, AI/ML, Tensorflow, OpenCV, DZone

Extras

chatformers: Chatformers is a Python package that simplifies chatbot development by automatically managing chat history using local vector databases like Chroma DB.

pypi.org/project/chatformers

JarvisAI: JarvisAI is Python library to build your own AI virtual assistant with natural language processing.

pypi.org/project/chatformers

Python is all you need: Written Python ebook

techport.myinstamojo.com/product/python-is-all-you-need

Techport: Auto LLM powered blog website.

www.thetechport.in