

Experience

Paras Solutions | Software Engineer

2024-2025

- Built a machine learning model to **predict** whether a customer loan will be paid or defaulted using historical company data.
- Engineered a high-performance filter **API** improving data retrieval **speed**.
- Built IFL Portal for loan data visualization dashboard with Excel Bulk upload functionality.
- Implemented **RBL** Project enabling direct product **ordering** through portal.
- Developed **responsive** UI with React.js and **optimized** backend using Node.js and MongoDB.
- Created **serverless** architecture for Piramal Portal using AWS S3 and MongoDB for improved scalability and **cost-effectiveness**.

Project

Large Language Model (Building From Scratch) [\[link\]](#)

Tech Stack: Python, PyTorch, Pandas, Numpy, TikToken

- Built a **Transformer-based** Large Language Model from scratch using PyTorch.
- The model contains **49B parameters** and was trained on a **471M Tokens** custom dataset using GPU acceleration for efficient large-scale training.
- Implemented attention mechanism, tokenization, and training pipeline.

Image Generator Model (Building From Scratch) [\[link\]](#)

Tech Stack: Python, PyTorch, Diffusion, Deep Learning.

- Developed an AI image generation system using Diffusion techniques to generate images from a relevant image dataset.
- Implemented **diffusion-based** generative models using PyTorch, including noise scheduling and denoising processes.
- Built a training and inference pipeline for generating images based on **conditioning** and **non-conditionals**.

YouTube Sentiment Analysis (End-to-End MLOps Project) [\[link\]](#)

Tech Stack: Python, Pandas, Numpy, PyTorch, MLflow

- Developed an **end-to-end** sentiment analysis system for YouTube data using machine learning.
- Implemented experiment tracking and model versioning using **MLflow**.
- Deployed the model for real-time sentiment prediction via **API-based** architecture.
- Integrated **monitoring** system to track model performance and detect drift.
- Ensured reproducibility and scalability using modular **MLOps** practices.

Language Detect (End-to-End MLOps Project) [\[link\]](#)

Tech Stack: Python, Pandas, PyTorch, Deep Learning, MLflow

- Developed an end-to-end language detection system using **deep learning** models for text classification.
- Built data ingestion and preprocessing pipelines to clean and normalize multilingual datasets.
- Integrated MLflow for **experiment tracking**, model versioning, and performance comparison.
- Deployed the model for real-time language detection via **FastAPI** architecture.

Awards & Recognition

3x Hackathon Winner

- ISTD (Indian Society for Training & Development) – 1st Runner-Up
- VJTI College Hackathon – Winner
- Pillai College Hackathon – 1st Runner-Up

Education

University of Mumbai | 2023-2026

Bachelor of Science in Information Technology

Skills

Programming & Frameworks: Python, Pytorch, TensorFlow, Keras, Scikit-learn, FastAPI, Flask

Machine Learning & Deep Learning: Random Forest, XGBoost, LightGBM, ANN, RNN, CNN, LSTM, Encoder-Decoder, PCA, Clustering, Feature Engineering, EDA

Natural Language Processing: Tokenization, Embeddings, Stemming & Lemmatization, Language Modeling, Text Classification, BERT, SpaCy, NLTK, LIamaIndex

Generative AI & LLMs: GPT, LangChain, RAG Pipeline, HuggingFace Transformers

Data Visualization: Matplotlib, Seaborn

Tools & Deployment: MlFlow, Git/GitHub, Docker, AWS, Azure.