

Prithvi Singh

Machine Learning Engineer | Distributed Training & LLM Systems

+91-9619952004 | prithvi30singh@gmail.com | linkedin.com/in/prithvi-singh | github.com/pr1tzy

EDUCATION

SVKM'S NMIMS MPSTME

B.Tech Data Science; Hons. in IoT, Cloud Computing and Blockchain

Mumbai

2022 – 2026

EXPERIENCE

AceLink Software Solutions

Mumbai

Junior Backend Developer

July 2026 – Present

- Develop and maintain RESTful APIs using Python, FastAPI, and SQLAlchemy, implementing modular routers, request validation, and business logic for backend service workflows.
- Provision and manage cloud infrastructure using Terraform and AWS, deploying containerized services on ECS and integrating Cognito for identity and authentication.

BharatGen (IIT Bombay)

Mumbai

Technical Intern

Oct 2025 – May 2026

- Trained a 2.9B parameter dense embedding model on a distributed cluster of H100 GPUs using a tokenized English corpus, improving inference latency and reducing computational overhead.
- Conducted experiments comparing causal and bidirectional masking paradigms during pre-training and supervised fine-tuning, reducing hallucinations and improving retrieval accuracy.
- Built a full-stack tool (FastAPI, React) to migrate 1PB+ of data to AWS S3 and automated GPU diagnostics using Fabric on Slurm clusters.
- Developed RAG-based applications integrating Qdrant and Neo4j for semantic vector and graph-based document retrieval.

PROJECTS

Parkinson's Diagnosis Toolkit | *ML, Keystroke Dynamics, Signal Processing*

- Designed a diagnostic tool to detect early Parkinson's symptoms from typing and drawing patterns.
- Applied feature extraction techniques (wavelet transforms, time-frequency analysis) for signal data.
- Trained classical ML models (SVM, Random Forest) achieving ~82% accuracy on the validation set.

Forex Forecasting & Optimization Suite | *LSTM, Portfolio Theory, Market Regime Detection*

- Built an LSTM-based forecasting pipeline for short-term forex movements with regime detection to dynamically adapt trading strategies.
- Implemented Markowitz portfolio optimization, arbitrage detection, and historical backtesting with simulated trading outcomes.

TECHNICAL SKILLS

ML/DL: PyTorch, TensorFlow, Keras, scikit-learn, Transformers

LLM & Retrieval: Distributed pre-training, Supervised fine-tuning, Embeddings, RAG, Qdrant, Neo4j

Infrastructure: Multi-node H100 clusters, Slurm, Fabric, Docker, AWS (ECS, S3, SQS, CloudWatch), Terraform

Languages: Python, SQL

Backend: FastAPI, SQLAlchemy, PostgreSQL, Alembic, REST APIs

Tools: Git, Linux, Jupyter