

Nirav Polara

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SKILLS

- **Programming Languages** : Python, Java, SQL, NoSQL
- **Generative AI & LLMs**: LLM Integration, Fine-Tuning (LoRA/QLoRA), RAG, Prompt Optimization, LlamaIndex, Vector Embeddings & Semantic Search
- **ML/DL**: PyTorch, TensorFlow, Keras, Hugging Face Transformers, Weights & Biases, DistilBERT, BART, T5,
- **Agentic AI & Orchestration**: LangGraph, CrewAI, AutoGen, Semantic Kernel, State-Tracking, Agentic Workflows, n8n
- **Data Storage** : PostgreSQL, MySQL, MongoDB, Oracle, Redis
- **Cloud & Infrastructure**: AWS, GCP, Docker, Kubernetes, Terraform, FastAPI
- **MLOps & Observability**: CI/CD Pipelines, Git, Prometheus, Grafana, OpenTelemetry, Model Versioning, Automated Retraining

PROJECTS

- TradingPro** | Python, PyTorch, FinBERT, Transformers, XGBoost, TA-Lib, RAG, Docker, React, Flask, PostgreSQL, Celery
- Orchestrated LangGraph multi-agent workflows to automate strategy synthesis, improving signal precision from 55% to 65%.
 - Developed Temporal Fusion Transformers for time-series forecasting, achieving 60% directional accuracy over LSTM baselines
 - Engineered a RAG-based pipeline using Pinecone to ingest 50k+ news sources, reducing research latency by 70%.
 - Built an end-to-end MLOps pipeline with Celery for real-time inference, maintaining sub-5s latency for production signals.
 - Implemented Monte Carlo simulations and Kelly Criterion for position sizing, reducing portfolio drawdown by 40%
- FraudGuard** | Java, Python, Kafka, Flink, XGBoost, PyTorch, FastAPI, Redis, Docker, Kubernetes, Azure, Prometheus/Grafana
- Engineered real-time fraud platform using Flink and XGBoost, handling 50k+ TPS with sub-second latency
 - Designed hybrid detection layer combining Graph Neural Networks and rules for precise risk scoring.
 - Established CI/CD pipelines with Azure DevOps to automate secure model deployment and testing.
 - Unified streaming and batch data architectures by migrating legacy systems to Azure Synapse
 - Reduced financial risk by 18% through composite scoring logic and explainable AI frameworks.

EXPERIENCE

- Freelance AI Engineer (Toronto, ontario)** Apr 2024 - Present
- Designed and deployed domain-specific LLM and RAG systems to support business operations.
 - Fine-tuned transformer models (DistilBERT, BART, T5) achieving 95%+ accuracy on domain-specific NLP and retrieval tasks.
 - Established MLOps practices using MLflow for experiment tracking, model versioning, and controlled production releases.
 - Delivered production AI services on cloud infrastructure using AWS, FastAPI, and Docker.
 - Developed agentic AI applications using emerging agent frameworks to support reasoning and stateful interactions.
- Techy Panther** Ahmedabad, India
Software Developer Sep 2021 – Sep 2023
- Designed secure REST APIs with MongoDB, Node.js, and Python for production-grade application systems.
 - Customized Open edX LMS applications and deployed on Google Play Store and Apple App Store.
 - Deployed AWS and Firebase infrastructure supporting high availability and production-grade reliability across platforms.
 - Developed dashboards, admin panels, and workflow modules improving application performance and user experience.
 - Collaborated through complete SDLC ensuring timely delivery of stable, maintainable software solutions.
- Webunity InfoTech** Surat, India
Software Developer Apr 2019 – Feb 2021
- Developed Shopify and WordPress storefronts managing setup, customization, and client deployment strategies.
 - Built responsive websites and web applications integrating frontend and backend components for client requirements.
 - Designed and implemented responsive UI/UX interfaces using HTML, CSS, and JavaScript for optimal user experiences.
 - Managed ongoing website maintenance, updates, and client support ensuring continuous stability and security.
 - Conducted website testing, performance optimization, and quality assurance ensuring stable production deployments.

EDUCATION

- Master in Electrical and Computer Engineering | **University of Windsor** Jan 2024 – Apr 2025
Bachelor of Engineering in Computer Engineering | **Gujarat Technological University** Aug 2015 – Sep 2019