

ATHARVA PAGAR

Nashik, Maharashtra, India | 9403148744 | atharvapagar04@gmail.com | LinkedIn | GitHub: @AtharvaPagar04

Professional Summary

Computer Science (AI & ML) undergraduate focused on building practical, production-style AI systems: repository-aware RAG applications, hybrid retrieval pipelines, reinforcement-learning trading agents, and local LLM tooling. Hands-on with Python, PyTorch, Qdrant, SQLite, Ollama, Git, and Linux. Seeking AI Engineer / GenAI Engineer / LLM Engineer internship roles involving RAG systems, applied reinforcement learning, retrieval evaluation, and applied LLM development.

Skills

AI / GenAI: RAG systems, LLM application development, prompt engineering, LangChain, LlamaIndex, Ollama, Hugging Face Transformers

Reinforcement Learning: PPO, actor-critic architectures, GAE, reward shaping, policy-gradient methods

Deep Learning: PyTorch, LSTM / sequence modeling, time-series feature engineering

Retrieval / Vector Search: Qdrant, embeddings, hybrid search (BM25 + RRF), semantic search, retrieval evaluation

Evaluation / Observability: DeepEval, pytest, groundedness & hallucination testing

Model Adaptation: LoRA, PEFT, local LLM inference workflows

Quant / Trading: Backtesting, equity-curve evaluation, multi-asset pipelines, Binance API, OHLCV data processing

Programming / Backend: Python, Java, JavaScript/TypeScript, FastAPI, REST APIs, SQLite, PostgreSQL, MongoDB

Frontend / Infra: React.js, Next.js, Tailwind CSS, Git, Linux, Docker

Projects

GitHub **CodeSeek – Repository-Aware RAG Coding Assistant** *Python, Qdrant, RAG, Ollama, Git*

- Built a local-first, repository-aware RAG assistant combining Qdrant vector search with in-process BM25 and Reciprocal Rank Fusion (RRF) for hybrid retrieval across codebases and docs.
- Designed a scored intent-classification layer (10 intent families) and a two-layer source-attribution model to ground LLM answers in retrieved code context and reduce hallucinated responses.
- Built a retrieval-evaluation harness (DeepEval, Continuous Eval, pytest) to catch file/symbol hit errors and false-absence failures; used findings to diagnose and fix hardcoded query-processing logic that was breaking retrieval on external repositories.

GitHub **RL Trading Agent – LSTM/PPO Position-Sizing System** *Python, PyTorch, PPO, LSTM, Binance OHLCV*

- Built an offline reinforcement-learning trading research system using a shared LSTM actor-critic policy trained with PPO to learn continuous long/short position sizing from crypto market sequences.
- Engineered hourly OHLCV feature pipelines, rolling-window datasets, custom trading environments, and risk-aware reward components for BTC, ETH, and SOL experiments.
- Implemented PPO training with GAE, clipped actor-critic objectives, entropy regularization, gradient clipping, deterministic evaluation, walk-forward testing, feature ablation, seed validation, and exposure-equivalent baseline comparisons.

Experience

IT Support Assistant / Hardware Assistant – Yash Infotech *Nashik | June 2023 – August 2023*

- Diagnosed and resolved system, hardware, OS, and basic network issues, strengthening troubleshooting and root-cause analysis skills.
- Assisted with small-scale network setups and basic configuration during client visits, maintaining equipment and documentation workflows under time constraints.

Education

VIT Bhopal University, Bhopal *September 2023 – May 2027*

B.Tech, Computer Science and Engineering (AI & ML) CGPA: 7.73

Unnati Secondary and Higher Secondary School, Nashik *May 2023*

HSC: 66.50%

Espalier The Experimental School, Nashik *May 2021*

SSC: 88.40%

Certifications

NPTEL Cloud Computing Certification | IBM Blockchain Developer Certification