Senior Machine Learning Engineer – Generative & Agentic AI

Location: Hybrid/Remote | **Type:** Permanent | **Level:** Senior (4–5+ years experience)

About the Role

We are seeking an experienced **Senior Machine Learning Engineer** to design, build, and scale advanced AI/ML solutions with a strong focus on **Generative AI** and **Agentic AI systems**. You will play a key role in shaping and deploying next-generation AI applications, driving innovation in large-scale, data-intensive environments.

This is not a junior position — we're looking for someone with solid foundations in **data science and machine learning**, proven hands-on experience, and the ability to architect production-grade GenAI solutions.

Key Responsibilities

- Design, develop, and deploy **scalable ML/AI applications** in large-scale data environments.
- Build and optimize **Generative AI** and **Agentic AI systems**, leveraging frameworks such as LangFlow, LangGraph, and LangChain.
- Develop solutions around **LLMs, RAG/TAG pipelines, vectorization, and multi-agent architectures**.
- Implement and monitor **prompt catalogues** and **observability workflows** (e.g., Langfuse).
- Build robust APIs in Python to integrate ML/AI capabilities into enterprise systems.
- Architect and scale infrastructure on **OpenShift, Kubernetes, and cloud-native platforms** (Azure/GCP/hybrid).
- Develop and optimize **end-to-end ML pipelines** with tools like Kubeflow, Airflow, and MLFlow.
- Collaborate with data engineers and product teams to design **efficient data pipelines** for training and inference.
- Apply **AIOps, LLMOps, and MLOps best practices** for lifecycle management.
- Conduct model evaluation, monitoring, and optimization using modern techniques and metrics.
- Lead capacity planning and performance optimization for high-throughput AI systems.

Required Skills & Experience

- **Education:** Bachelor's or higher degree in Computer Science, Mathematics, Engineering, or related field.
- **Experience:** 5+ years of hands-on work in **machine learning** and **large-scale AI systems**.
- **Generative AI & Agentic AI expertise**:
  - LLMs, GANs, Transformers
  - RAG/TAG solutions and vectorization
  - Multi-agent systems (LangFlow)
  - Agentic AI development (LangGraph, LangChain)
  - Prompt catalog & monitoring (Langfuse)

- **Technical Proficiency:**
  - ML frameworks: TensorFlow, PyTorch, HuggingFace
  - CUDA, flash attention, VectorDB, GraphDBs (Neo4j)
  - Big Data: Hadoop, Spark, Kafka, Elasticsearch
  - Databases: PostgreSQL, MongoDB, HBase
  - Data lakehouse: MinIO, S3, Iceberg
  - Containerization & orchestration: Docker, Kubernetes, OpenShift
  - Cloud-native (Azure, GCP, hybrid infra)
  - Python (expert), Linux & bash scripting

- Strong understanding of **feature engineering, data wrangling, and ML model evaluation**.
- Experience working in **Agile teams**, delivering results in **fast-paced environments**.

Nice-to-Have (Plus)

- Experience with **deep learning and NLP techniques**.
- Familiarity with **Solr, NiFi, and additional Big Data technologies**.
- Exposure to **cutting-edge research in GenAI/Agentic AI**.

What We're Looking For

We understand no candidate will tick every single box. The most **critical requirements** are:

- A strong **data science/ML background**
- Proven hands-on experience in **Generative AI and Agentic AI** (LangFlow, LangGraph, LangChain)
- Ability to architect and scale real-world **AI solutions** in production environments

If you bring these, we want to hear from you.

This role is open for one of our business partners in Turkiye. Please send your resume via this application form: https://linmetrics.com/DgQnt