

JEFFERSON NELSSON

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SUMMARY

AI/ML Engineer with 5+ years of experience designing, deploying, and optimizing machine learning-driven and LLM-powered systems. Strong background in AI/ML, agentic systems and full-stack development with a track record of shipping production-grade applications..

EXPERIENCE

AI/ML Engineer

ValueMomentum

September 2024 - Present, Erie, PA

- Deployed on-prem inference with Nvidia Triton + VLLM, enhancing data privacy and reducing end-to-end latency by 40%.
- Designed ViT-based crop damage classification and LayoutLMv3 w/ LSTM + LLM document intelligence pipelines, enabling insurance adjusters to triage and route claims 2x faster.
- Orchestrated multi-agent workflows and systems for code migration, developer assistance systems and risk assessment, cutting down manual effort by half.
- Led the development of an AI orchestration Python library emphasizing developer-friendly usage, reducing prototyping time by 70%.

Data Engineer Intern

Swiss Re

January 2024 - May 2024, Armonk, NY

- Instituted comprehensive unit and integration tests in the CI/CD pipeline, decreasing production issues by 60%.
- Optimized Spark transformations across a 20 TB data pipeline, improving runtime by 2.5x and lowering compute cost.
- Created an internal monitoring library in Python to standardize logging and metrics collection across data jobs, improving observability and incident response.

Research Assistant

NYU C2SMART

October 2023 - January 2024, New York, NY

- Engineered deep Q-learning algorithms for reinforcement learning experiments, surpassing previous model baselines by 15%.
- Explored quaternion time-series models to forecast 3D orientation and control signals, supporting research on robotics and immersive VR simulations.

Founding Software Engineer

Immigreat (Startup)

July 2019 - August 2022, Chennai, India

- Architected a serverless backend on Google Cloud Platform, ensuring high availability and scalability.
- Led a 15+ person cross-functional team, accelerating full-stack delivery and contributing to stable growth.
- Engineered RESTful APIs using Python and Flask, facilitating secure data exchange for 4 core microservices and processing over 1M requests monthly during first year launch.

EDUCATION

Master's in Computer Science

New York University • New York, NY • Sep 2022 - May 2024

Bachelor's in Computer Science

SRM University • Chennai, India • Jun 2018 - May 2022

SKILLS

Python, JavaScript, TypeScript, SQL, Java

PyTorch, TensorFlow, Transformers, RNN/LSTM, Deep Q-Learning, CNN

OpenAI, Anthropic, Ollama, vLLM, LangChain, LangGraph, RAG, Context Engineering

Flask, FastAPI, React, Next.js, Kubernetes, Docker, Git, CI/CD, Langfuse

AWS, Azure, GCP, DigitalOcean, Lambda Labs
