

Mohan Giri

AI / ML Engineer | M.Sc. Computer Science (AI & ML)

 Finland |  0409320530 |  mohan_gi@hotmail.com
 LinkedIn |  www.girimohan.com

Professional Summary

AI/ML Engineer and M.Sc. candidate at the **University of Helsinki**, specializing in **Computer Vision, NLP, Generative AI, and MLOps**. Strong hands-on experience in building high-precision ML systems (up to **97.9% accuracy**), deploying AI-powered web applications, and transitioning models from research to production using **Docker and Kubernetes**. Actively leveraging **LLMs (Gemini)**, **prompt engineering**, and **AI-assisted development (Copilot, Vibecoding)** to accelerate end-to-end AI product development.

Education

University of Helsinki — M.Sc. in Computer Science (Machine Learning & AI)

2025 – Present

HAMK University of Applied Sciences — Bachelor of Computer Applications

Aug 2021 – Dec 2024

Relevant Coursework: Machine Learning, Artificial Intelligence, Data Engineering, Statistics, NLP, Computer Vision

Technical Skills

AI & Machine Learning

- Computer Vision, NLP, Time Series Forecasting
- PyTorch, TensorFlow, Keras, Scikit-learn
- YOLOv5, OpenCV, Rasa, Hugging Face Transformers

Generative AI & LLM Orchestration

- Gemini Studio, Gemini CLI
- Prompt Engineering, Agentic Workflows
- GitHub Copilot, Vibecoding

MLOps & DevOps

- Docker, **Kubernetes (K8s)**
- Model containerization & scalable inference
- AWS Academy Cloud Foundation

Software Development

- Python, Flask, Django, Streamlit
- REST APIs, React, JavaScript, HTML/CSS, PHP

Data & Databases

- Pandas, NumPy, Matplotlib, PowerBI
 - MySQL, PostgreSQL, SQLite, NoSQL, Neo4j
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Experience

HAMK Smart — *Machine Learning Engineer Intern*

Jun 2024 – Nov 2024 - Developed a computer vision system for detecting and classifying metal surface blisters using **YOLOv5** and **OpenCV**. - Built a **Django-based web application** for real-time inspection and comparison against standard images. - Focused on model optimization and real-time inference performance.

Tech: Python, PyTorch, YOLOv5, OpenCV, Django

Cinia Oy — *Summer Project Developer*

Sept 2023 – Jan 2024 - Designed a **call volume prediction system** integrating Finnish weather APIs and calendar events. - Implemented forecasting models (**ARIMA**, **SARIMAX**) and data pipelines with interactive dashboards.

Tech: Python, Pandas, Scikit-learn, Time Series Analysis, API Integration

Silja Line — *Service Manager*

Jul 2013 – Aug 2021 - Led and coordinated operational teams in a high-pressure service environment. - Developed strong leadership, communication, and process optimization skills.

Selected Projects

Smart Parking Assistant (Bachelor Thesis)

- Combined **YOLOv5-based CV** with a **Rasa-powered conversational AI** for real-time parking management.
- Achieved **97.9% detection precision** and **92% intent recognition accuracy**.

Tech: Python, PyTorch, YOLOv5, Rasa, Flask, Streamlit

Tree Species Identification System

- Built a real-time Nordic tree species detection system achieving **96.9% precision**.
- Deployed interactive inference UI for end users.

Tech: Python, PyTorch, YOLOv5, Gradio

Real-Time Speech Sentiment Analysis

- Developed an end-to-end pipeline using **Wav2Vec2** for speech-to-text and **RoBERTa** for sentiment classification.

Tech: PyTorch, Transformers, Librosa

AI-Driven Web Applications (Generative AI)

- Architected AI-powered web apps integrating **Gemini Studio & CLI** for backend LLM logic.
- Accelerated development cycles by ~30% using **Vibecoding** and **GitHub Copilot**.

MLOps with Kubernetes (Ongoing)

- Containerized ML models using Docker and deployed scalable inference services with **Kubernetes**.
- Focused on reproducibility, scalability, and production readiness.

Certifications

- AWS Academy Cloud Foundation — Amazon (2023)
- Data Analyst in Power BI — DataCamp (2023)

Portfolio

 www.girimohan.com — Includes project summaries, demos, and visual proofs of unpublished work

Positioned for 2026 AI/ML Engineer roles with a strong focus on deployment, agentic AI workflows, and production-grade ML systems.