






# Mohan Giri

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

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## 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.

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## 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

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## 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

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### **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

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### **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.

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## 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

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### 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

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### 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

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### 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**.
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### MLOps with Kubernetes (Ongoing)

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

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

 [www.girimohan.com](https://www.girimohan.com) — Includes project summaries, demos, and visual proofs of unpublished work

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