



# Mohan Giri

Data Engineer | ML Engineer | Developer

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## Skills

### Machine Learning & AI

Advanced



PyTorch, Computer Vision, OpenCV, Rasa Framework, NLP, Scikit-learn, Pandas, NumPy, Time Series Analysis, TensorFlow, Keras, YOLO, Object detection

### Development

Advanced



Python, Flask, Django, Streamlit, RESTful APIs, Java, HTML/CSS, JavaScript, PHP, Git, React

### Data Analysis

Advanced



Statistical Analysis, PowerBI, Data Visualization, Excel, Matplotlib, Seaborn, Librosa

### Databases

Intermediate



MySQL, SQLite, PostgreSQL, NoSQL, Neo4j

### Tools & Other

Advanced



SCRUM, Jira, Confluence, Git, AWS Cloud Foundation, Robot Framework, Selenium

Graduating Computer Applications student at HAMK, specializing in Software Development, Data Science, Machine Learning and AI. Led successful ML projects including Smart Parking Assistant, Surface Blister Detection System, and Call Volume Prediction. Proficient in Computer Vision, NLP, Python, SQL, Data Analysis, PowerBI and AWS Cloud Foundation.

## Profiles

[Mohan Giri](#)

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## Education

<b>HAMK University of Applied Sciences</b>	<b>2021-08-01 - 2024-12-31</b>
Computer Applications	Bachelor
<a href="https://www.hamk.fi/en/">https://www.hamk.fi/en/</a>	

## Experience

<b>HAMK Smart</b>	<b>June 2024 - Nov 2024</b>
Machine Learning Engineer Intern	

Led the development of a comprehensive system for detecting and classifying blisters in color-coated metal surfaces. Implemented dual-approach solution using traditional machine vision (OpenCV) and deep learning (YOLOv5). Developed Django web application for real-time blister detection and comparison with standard images. Technologies: Python, Django, YOLO, OpenCV, PyTorch, Bootstrap

<b>Cinia Oy</b>	<b>Sept 2023 - Jan 2024</b>
Summer Project Developer	

Collaborated with Finnish tech company to develop call volume prediction system. Integrated external factors using Finnish weather API and calendar events data. Implemented comprehensive data pipeline with ARIMA and SARIMA-X models. Created interactive visualization dashboard for trend analysis. Technologies: Python, Pandas, Scikit-learn, Time Series Analysis, API Integration

<b>SiljaLine</b>	<b>July 2013 - Aug 2021</b>
Service Manager	

Led team operations for cabin preparation, ensuring high service standards and enhanced guest experiences. Managed service quality and supervised staff operations.

Certifications


Data Analyst in PowerBI

DataCamp  
Oct 2023

Advanced Data Analyst Course in  
PowerBI

AWS Academy Cloud Foundation


Amazon  
Sept 2023

 [Badge](#)

AWS Architecture, AWS Cloud,  
AWS Core Services, AWS Pricing,  
AWS Support

Languages

English

Fluent  


Finnish

Intermediate  


Interests

Hobbies

Vlogging, Cooking, Football, Badminton

Projects

Smart Parking Assistant - Thesis Project

Developed an intelligent parking management system combining YOLOv5l-based computer vision (97.9% detection precision) with Rasa chatbot interface (92% intent recognition). Implemented transfer learning with synthetic data augmentation on PKLot dataset, integrated Flask REST API for video processing, and created Streamlit web interface for real-time monitoring.

Python, PyTorch, Rasa, Flask, Streamlit, OpenCV, YOLO

Tree Species Identification System

Developed and implemented a computer vision system for automated tree species identification using YOLOv5 deep learning model. Achieved 96.9% precision in identifying five Nordic tree species (Birch, Maple, Pine, Rowan, Spruce). Created an interactive web interface for real-time tree detection and classification.

PyTorch, YOLOv5, Python, Gradio, Computer Vision

Real-Time Speech Sentiment Analysis System

Developed a real-time speech sentiment analysis system integrating Wav2Vec2 and RoBERTa deep learning models. Implemented audio processing, speech-to-text conversion, and sentiment classification pipeline with visualization capabilities using PyTorch, Transformers, and librosa

Deep Learning, NLP, Speech Recognition, Real-time Processing, PyTorch, Signal Processing, Sentiment Analysis

Gym Website

Full Stack Development Project

Designed and developed full-stack web application for gym management. Implemented features including membership management, class scheduling, and payment processing.

Bootstrap, JavaScript, HTML, PHP, CSS

Web Testing

Implemented automated testing framework for [Verkkokauppa.com](#) e-commerce platform using Robot Framework and Selenium. Developed test cases for critical user flows including product search, cart functionality, and checkout process.

Robot Framework, Selenium, Python, Web Testing

References


Tommi Lahti

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Suman Dahal

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