

Kanan Mahammadli

PhD Student, Max Planck Institute for Informatics — CS@Max Planck PhD Program

Saarbrücken, Germany — kanan.mahammadli@gmail.com — [Website](#) — [Google Scholar](#) — [GitHub](#) — [LinkedIn](#)

PROFILE

First-year PhD student at the Max Planck Institute for Informatics and the CS@Max Planck PhD Program, working on robot learning at the intersection of computer vision, representation learning, and action generation. I am broadly interested in scalable learning for robotic intelligence, with current work on action representations for robot manipulation.

RESEARCH INTERESTS

Robot Learning, Computer Vision, Representation Learning, Visuomotor Learning, Action Generation, Embodied Intelligence

EDUCATION

Max Planck Institute for Informatics Saarbrücken, Germany
PhD in Computer Science, CS@Max Planck PhD Program Sep. 2025 – Present

Middle East Technical University Ankara, Turkey
B.S. in Mathematics, Minor in Statistics — CGPA: 3.64/4.00 Sep. 2020 – Jun. 2025

- Graduated with High Honor / Honor distinction; recipient of Full Tuition Scholarship for Academic Excellence.
- Relevant graduate coursework: Machine Learning, Deep Learning, Reinforcement Learning, Sequence Models in Multimedia.

RESEARCH EXPERIENCE

PhD Student Researcher Sep. 2025 – Present
Max Planck Institute for Informatics Saarbrücken, Germany

- Working on robot learning at the intersection of computer vision, representation learning, and action generation.
- Interested in scalable learning of representations and policies for robotic intelligence.
- Current project studies continuous latent action representations learned from human videos and their use in robot manipulation.

Undergraduate Student Researcher Jul. 2023 – Jun. 2025
AI Lab, METU BILTIR Center — Supervised by Prof. Seyda Ertekin Ankara, Turkey

- Conducted research on automated and efficient hyperparameter optimization using large language models, leading to the SLLMBO framework.

Undergraduate Computer Vision Research Intern Jul. 2022 – Sep. 2022
University of Houston — Supervised by Prof. Ioannis Kakadiaris Houston, TX, USA

- Worked on human detection from UAV imagery captured under varying viewpoints, distances, and weather conditions, using feature pyramid networks for multi-scale visual recognition.
- Worked on face representation and clustering using FaceNet embeddings and FAISS for efficient similarity-based analysis.

PUBLICATIONS

Mahammadli, K. and Ertekin, S. *Sequential Large Language Model-Based Hyperparameter Optimization*. arXiv:2410.20302, 2024.

SELECTED INDUSTRY EXPERIENCE

Senior Data and Optimization Scientist Nov. 2023 – Jul. 2025
SmartKiwi AI London, UK (Remote)

- Built an end-to-end decision-support platform for demand forecasting and inventory optimization, enabling users to obtain tailored forecasts and support operational decisions through an interactive interface.
- Developed and deployed a high-frequency passenger forecasting and optimization system at Istanbul Grand Airport for lane and staff allocation, achieving 92% accuracy, reducing wait times by 25–35%, and improving staff productivity.

Mid-level Data Scientist

May 2023 – Nov. 2023

SmartKiwi AI

London, UK (Remote)

- Designed a polygon-based region assignment strategy for Sendeo's courier operations, replacing street-based assignments with optimized service regions and improving delivery coverage and workload balance.
- Contributed to automated courier scheduling and route assignment systems, replacing manual planning with data-driven optimization across the delivery network.

Junior Data Scientist

Jan. 2023 – May 2023

SmartKiwi AI

London, UK (Remote)

- Developed a geospatial demand modeling strategy for car-sharing systems by partitioning cities into hexagonal grids, improving vehicle distribution and service availability across multiple deployments.
- Built a surge pricing model for more than 80 kitchen locations by analyzing user behavior and dynamically adjusting delivery fees, increasing monthly delivery revenue by 50% without harming user conversion.

Data Science Intern

Nov. 2021 – Apr. 2022

Affable AI

Singapore (Remote)

- Improved the sentiment analysis pipeline, reducing batch prediction latency from 180 seconds to 23 seconds and enabling faster large-scale NLP processing.
- Deployed a transformer-based brand classification model that improved influencer matching quality by 25% for digital marketing applications.

TECHNICAL SKILLS

Programming / Tools: Python, PyTorch, scikit-learn, NumPy, Pandas, Git

Areas: Deep Learning, Computer Vision, Representation Learning, Machine Learning, Optimization