AMIRSHAYAN NASIRIMAJD

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EDUCATION

Politecnico di Torino *Sep. 2021-April.2024*
M.Sc. in Data Science and Engineering
Graduation Score:107/110
Thesis: Sequential Domain Generalisation for Egocentric Action Recognition

Yazd University *Sep. 2016-Sep. 2020*
B.Sc. in Computer Engineering
GPA: 17.75/20 - (3.8/4) (Top 5 student of my graduating class)
Final Project: Touristic Sites Management App

RESEARCH INTERESTS

- Video Understanding   - Multimodal Learning   - Vision-Language models   - Domain Generalization   - Robotics

SELECTED AWARDS

- Winner of 2023 EPIC-Kitchens Unsupervised Domain Adaptation for Egocentric Action Recognition *Jul. 2023*
Challenge at the 11th EPIC@CVPR2023 workshop in Vancouver.

- Politecnico Di Torino Merit Student *Sep. 2022*

- Holder of Invest Your Talent In Italy (IYT) Grant as one of the 64 international students *Sep. 2021 – Jul. 2023*
among 1387 applicants in Italy, who received 16,000 euros based on their academic merit.

SKILLS

- Technical: Python(Pytorch, ROS 1/2, OpenCV, TensorFlow, Keras, Scikit-Learn, Spark), Java(Hadoop, Android), C++(AVR, Arduino), Matlab, Gazebo, Moveit 2, HTML/CSS, Database(SQL, NoSQL)

- Research: Scientific Writing (LaTex), Analysing, and Problem-Solving

- Soft: Team-working, Teaching, Project Management, Executing Management

- Language: Persian(Native), English(IELTS 7), Italian(A1/2), German(A1/2)

PUBLICATION

- Nasirimajd, Amirshayan; Alberto Peirone, Simone; Plizzari, Chiara; Ciccone, Marco; Averta, Giuseppe; Caputo, Barbara (2025): Domain Generalization using Action Sequences For Egocentric Action Recognition. Accepted in Pattern Recognition Letters (PRL). doi.org/10.48550/arXiv.2506.17685

- Nasirimajd, Amirshayan (2024): Sequential Domain Generalisation for Egocentric Action Recognition. Politecnico di Torino Webthesis Portal

- Nasirimajd, Amirshayan; Alberto Peirone, Simone; Plizzari, Chiara; Caputo, Barbara (2023): EPIC-KITCHENS-100 Unsupervised Domain Adaptation Challenge: Mixed Sequences Prediction. 11th EPIC@CVPR2023 workshop. doi.org/10.48550/arXiv.2307.12837

- Esmaeili Najafabadi, Hamid; Zhang, Zhenkai; Yousefan, Mahdi; Nasirimajd, Amirshayan (2022): Anomaly Detection Based on Sigmoid Metric and Object Area Filtering in Hyperspectral Images. Authorea Preprints. doi.org/10.36227/techrxiv.19400612.v1

EXPERIENCES

Research Fellowship *Jun. 2024 – present*
Politecnico di Milano
– Focusing on applied AI in different EU Projects:
  – Participation in the ENFIELD Horizon project, working on AI in manufacturing (Multimodal egocentric video understanding for operator task management in manufacturing).
  – Participation in the Arise-Middleware project, working on computer vision and LLM in human-robot interaction.

Research Assistant *Nov. 2022 – Dec. 2023*

Vandal Lab (Politecnico di Torino)

— Working on domain shift problem in egocentric videos.
— Introducing a vision-language framework for domain generalization in egocentric action recognition (Accepted in Pattern Recognition Letter)
— Introduction of a multimodal approach for semantic base domain adaptation in egocentric action recognition, and winning the EPIC-Kitchens Unsupervised Domain Adaptation at the 11th EPIC@CVPR2023 workshop in Vancouver.

Computer Vision Engineer *Oct. 2023 – Mar. 2024*

Netventure

— Working on-camera motion estimation using optical flow in the video.

Deep Learning Research Intern *Jul. 2022 – Oct. 2022*

Aiko Space

— Reproducing the results of a multi-task framework for 6D pose estimation using a monochrome camera image.
— Testing and analysis of different augmentations on the multi-task pose estimator model.

TEACHING EXPERIENCES

Deep Learning and Machine Learning Teaching Assistant *Winter 2023*

Politecnico di Torino

— Laboratory supervisor: Providing exercises and helping students to solve them.
  Course Teacher: Dr. Barbara Caputo

Advanced Machine Learning Teaching Assistant *Fall 2022*

Politecnico di Torino

— Laboratory supervisor: Providing exercises and helping students to solve them.
  Course Teacher: Dr. Tatiana Tommasi

Data Science Lab: Process And Methods Teaching Assistant *Fall 2022*

Politecnico di Torino

— Laboratory supervisor: Providing exercises and helping students to solve them.
  Course Teacher: Dr. Elena Maria Baralis

Algorithm Design Teaching Assistant *Fall 2019-Winter 2020*

Yazd University

— Supervising workshops and scoring practical exams.
  Course Teacher: Dr. Sajjad Zarifzadeh

Fundamental Of Programming Teaching Assistant *Fall 2017*

Yazd University

— Holding class, giving exercises and scoring papers.
  Course Teacher: Dr. Mohammad Reza Pajoohan

REFERENCE

- **Dr. Giuseppe Bruno Averta** *Politecnico di Torino*
  Email: giuseppe.averta@polito.it

- **Dr. Chiara Plizzari** *Politecnico di Milano*
  Email: chiara.plizzari@polimi.it