Kaan KARAMAN

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Personal Page / Scholar / Linkedin / Twitter

EDUCATION

Doctorate of Philosophy 2021 - 2025 (expected)
University of Zurich, Zurich, Switzerland
Institute for Computational Science
Specialized in Data Science
CGPA: 5.38 / 6.00
Thesis Topic: Deforestation Detection via SAR Image Time Series
Advisor: Prof. Dr. Jan D. Wegner

Master of Science 2017 - 2021
Middle East Technical University, Ankara, Turkey
Electrical and Electronics Engineering Department
Specialized in Signal Processing
CGPA: 3.79 / 4.00
Thesis: Deep Metric Learning with Distance Sensitive Entangled Triplet Losses
Advisor: Prof. Dr. A. Aydin Alatan

Bachelor of Science 2012 - 2017
Middle East Technical University, Ankara, Turkey
Electrical and Electronics Engineering Department
Specialized in Biomedical Engineering and Imaging
CGPA: 3.81 / 4.00 (Ranked 9^{th} among 375 senior level students)

Double Major 2013 - 2017
Middle East Technical University, Ankara, Turkey
Physics Department
Specialized in Mathematical Physics and Relativity
CGPA: 3.67 / 4.00

Preparatory School 2011 - 2012
Middle East Technical University, Ankara, Turkey

High School 2007 - 2011
Adem Tolunay Anatolian High School, Antalya, Turkey
Specialized in Mathematics and Science
CGPA: 86.61 / 100.00

HONORS

Dean's High Honor List ($\times 8$)
Semester GPA $> 3.5/4.0$

Dean's Honor List ($\times 1$)
$3.0/4.0 <$ Semester GPA $< 3.5/4.0$

IEEE Signal Processing Society Travel Grant
In 26th IEEE International Conference on Image Processing (ICIP), 2019

Graduate Scholarship
The Scientific and Technological Research Council of Turkey (TUBITAK)

PUBLICATIONS

Karaman, K., Garnot, V. S. F. & Wegner, J. D. (2023, September). Deforestation detection in the amazon with sentinel-1 sar image time series. ISPRS Geospatial Week 2023. *(Accepted)*

Karaman, K., & Alatan, A. A. (2021, September). Metu loss: metric learning with entangled triplet unified loss. In 28th IEEE International Conference on Image Processing (ICIP). IEEE.

Kayabasi, A., **Karaman, K.**, & Akkaya, I. B. (2021, April). Comparison of distance metric learning methods against label noise for fine-grained recognition. In Automatic Target Recognition XXXI (Vol. 11729, p. 117290F). International Society for Optics and Photonics (SPIE).

Akkaya I. B., & **Karaman, K.** (2020, May). A robust technique for real-time face verification with a generative network. In Real-Time Image Processing and Deep Learning (Vol. 11401, p. 1140107). International Society for Optics and Photonics (SPIE).

Karaman, K., Akkaya I. B., Solmaz B., & Alatan A. A. (2020, October). A face recognition technique by representative learning with the quadruplets. In 28th Signal Processing and Communications Applications Conference (SIU). IEEE.

Karaman, K., Akkaya I. B., & Alatan A. A. (2020, October). Metric learning with quadruplets on non-hierarchical labeled datasets. In 28th Signal Processing and Communications Applications Conference (SIU). IEEE.

Karaman, K., Gundogdu, E., Koc, A., & Alatan, A. A. (2019, September). Quadruplet selection methods for deep embedding learning. In 26th IEEE International Conference on Image Processing (ICIP). IEEE.

Karaman, K., & Akkaya I. B. (2019, October). Semi-supervised adversarial training of a lightweight neural network for visual recognition. In Counterterrorism, Crime Fighting, Forensics, and Surveillance Technologies II (Vol. 11166, p. 111660O). International Society for Optics and Photonics (SPIE).

Solmaz, B., & **Karaman, K.** (2019, April). Modeling human activities via long short term memory networks. In 27th Signal Processing and Communications Applications Conference (SIU). IEEE.

Karaman, K., Koc, A., & Alatan, A. A. (2018, October). Face recognition based on embedding learning. In Counterterrorism, Crime Fighting, Forensics, and Surveillance Technologies II (Vol. 10802, p. 108020J). International Society for Optics and Photonics (SPIE).

Karaman, K., Gundogdu, E., Koc, A., & Alatan, A. A. (2018, May). A method for quadruplet sample selection in deep feature learning. In 26th Signal Processing and Communications Applications Conference (SIU). IEEE.

Solmaz, B., Gundogdu, E., **Karaman, K.**, Yucesoy, V., & Koc, A. (2017, October). Fine-grained visual marine vessel classification for coastal surveillance and defense applications. In Electro-Optical Remote Sensing XI (Vol. 10434, p. 104340A). International Society for Optics and Photonics (SPIE).

WORK EXPERIENCE

Research Engineer — July 2017 - July 2021
ASELSAN Research Center

Internship — August 2016 - September 2016
Anketek

Internship — June 2015 - July 2015
ASELSAN

EXTRA-CURRICULAR ACTIVITIES

METU Information Office for Newcomers — 2013-2017
Volunteer

CERN, a 2-day technical tour — August 2013
Accompanied by Prof. Dr. Bilge Demirkoz

METU Gastronomy Society — 2013-2014
Organized Society Events

METU Debate Society — 2011-2013
Quarter-finalist of Bogazici University Debate Tournament (January 2011)
Organized Society Events

LANGUAGE

Turkish: Native
English: Advanced
German: Beginner

SKILLS

Operating Systems
Ubuntu, Windows.

Package Programs
Microsoft Office Programs, LaTeX, PyCharm, LTspice, Key Creator, Agilent VEE, LabVIEW, Xilinx VIVADO.

Programming Languages
Python, MATLAB, C++, Verilog.

Libraries in Python
PyTorch, Pandas, OpenCV, Numpy, Scikit-Learn, SciPy, Matplotlib, Seaborn.

REFERENCES

Available upon request