# AHMET AKMAN

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# Education

# Swiss Federal Institute of Technology Zurich || ETH Zürich

2025 - Ongoing

Doctorate at D-ITET (Electrical Engineering and Information Technology) and ZNZ (Neuroscience).

Zurich, Switzerland

Université Paris-Saclay

2024 - 2025

Master of Science (M2) in Computational Neuroscience and Neuroengineering

Paris, France

Program organized by NeuroPSI and CentraleSupélec

#### Middle East Technical University

2020 - 2024

Bachelor of Science in Electrical and Electronics Engineering

Ankara, Turkey

Specialized in Signal Processing

English Preparatory School

2019 - 2020

Experience

ETH Zürich

October 2025 - Ongoing

Doctoral Researcher

Zurich, Switzerland

• Research in Neural Dynamics Lab at Institute of Neuroinformatics under the supervision of Prof. Timothée Proix.

ETH Zürich

January 2025 - July 2025

Master Thesis Intern

Zurich, Switzerland

• Studied task schemata in target learning within the Grewelab at Institute of Neuroinformatics for my masters thesis internship.

# CentraleSupélec L2S

October 2024 - December 2024

Project Researcher

Gif sur Yvette, France

· Worked on control theory approach to self-organized criticality in neuronal systems. Poster presented.

## METU OGAM (Center for Image Analysis)

February 2022 - August 2024

Undergraduate Researcher

Ankara, Turkey

- Worked on event-based vision and neuromorphic schemes under the supervision of Prof.Dr.Avdın Alatan
- Developed the SotA method in event-based video frame interpolation and published it at a major conference.
- Worked on event-based high speed feature tracking problem.

# Max Planck Institute for Dynamics and Self-Organization

July 2023 - September 2023

Research Intern

Candidate Engineer

Göttingen, Germany

• Have been working on self-sustaining only-excitatory neuronal network dynamics under the supervision of Dr. Johannes Zierenberg and Jonas Dehning in the Prof. Viola Priesemann's group. (Ongoing project.\*)

HAVELSAN October 2023 – August 2024

• Worked in autonomous and swarm systems team as a computer vision specialist.

#### **ESEN System Integration**

July 2022 - August 2022

Intern

Ankara, Turkey

Ankara, Turkey

- Worked on development of deep-learning based EO-EO, EO-IR image registration system.
- Implemented 5 state-of-the-art paper in Python and PyTorch and tested them with airborne-spaceborne data.

#### **Publications**

#### Conference Workshop Paper

2024

Kurt, Y. B., **Akman, A.**, & Alatan, A. A. (2024). Causal Transformer for Fusion and Pose Estimation in D-VIO. <u>ArXiv</u> Presented in-person at ECCV2024.

Conference Paper 2023

Kilic, O. S., Akman, A., & Alatan, A. A. (2023). E-VFIA: Event-Based Video Frame Interpolation with Attention. <u>IEEE</u> Presented in-person at ICRA 2023.

#### References

Available upon request.

# Languages

Turkish: Native - English: C1, IELTS Academic Score: 7.5 (10/2023) - French and German: Beginner

#### Honors and Awards

Honors and Hwards	
Graduation GPA   METU Electrical and Electronics Engineering Dept. Ranked in top %10 upon graduation.	Jun 2024
<b>First Place</b>   <i>METU Aerospace Engineering Dept Boeing</i> VTOL competition with METU Göksat Space Team	Nov 2021
Second Place & Best Presentation   Havelsan - T3 Foundation Swarm UAV competition, Teknofest, using Crazyflies quadcopters	Sep 2021
Third Place   Pixery Hackathon, IEEE METU 48-hour hackathon for aiding visually impaired via machine learning and CV	Jan 2020
National University Entrance Exam   $\ddot{O}SYM$ - Ministy of Education Ranked 1174th amongst 2024549 ( $\approx 2M$ ) participants.	Jun 2019
First Place   Akdeniz University AI for UAV project, Prof. Dr. Fuat Sezgin Competition	May 2019
Second Place   $T\ddot{U}B\dot{I}TAK$ Cube Satellites Project, Coding Category, Inter-High School Research	Mar 2018
<b>First Place</b>   <i>Ministry of Education - TÜBİTAK</i> 11th International MEB Robotics Competition, Design and Run	May 2017

# Leadership / Extracurricular

## METU Göksat Space Team

January 2020 - November 2021

 $Team\ Leader$ 

Techical Student Team

- Led the METU Göksat Space Team in national and international aerospace competitions, overseeing the organization and operations of four specialized subteams: Electronics/Software, Organization/Sponsorship, Mechanical, and Integration.
- Served as Electronics/Software subsystem designer. Developed the electrical subsystem for a mini UAV, designed electronics and PCBs for avionics across three model satellites, and created embedded software for satellite models.

#### Antalya Anatolian High School Physics Society

October 2016 – June 2018

Science Club Co-President

- Co-led the Physics Society, organizing initiatives to foster scientific engagement among students.
- Coordinated events, including sky observation nights, educational conferences, Pi Day celebrations, and science fair experiments.
- Established club room and robotics division.

# **Technical Skills**

Programming Languages: Python, MATLAB, C, Julia, ARM Assembly

Technologies/Frameworks: OpenCV, PyTorch, Git, Conda, NumPy/CuPy, Matplotlib, SciPy, Intel LAVA, Brian2 Simulink, Linux, LabView, Verilog HDL, Qt, Eagle CAD, Fusion360 CAD, Siemens NX CAD, HTML/CSS, IATEX

# Interests

Turkish Classical Music (Former soloist at ODTÜ KTMT), Street Photography, Astronomy, Motorsports, Football