AHMET AKMAN

Üniversiteler Mahallesi 19. Yurt No: 111 ODTÜ Çankaya, Ankara

Education

Middle East Technical University

2020 - Ongoing

Bachelor of Science in Electrical and Electronics Engineering [CGPA: 3.46/4]

Ankara, Turkey

 $English\ Preparatory\ School$

2019 - 2020

Antalya Anatolian High School

2015 - 2019

Science and Math Division [92.5/100]

Antalya, Turkey

Publications

Conference Paper

2023 *ArXiv*

Akman, A., Kilic, O. S., & Alatan, A. A. (2023). MAEVI: Motion Aware Event-Based Video Frame Interpolation. Submitted to ICIP 2023.

Conference Paper

2022

Kilic, O. S., **Akman**, **A.**, & Alatan, A. A. (2022). E-VFIA: Event-Based Video Frame Interpolation with Attention. <u>ArXiv</u> Presented in-person at ICRA 2023.

Experience

METU OGAM (Center for Image Analysis)

February 2022 - Ongoing

Undergraduate Researcher

Ankara, Turkey

• Have been working on event-based vision and neuromorphic algorithms under the supervision of Prof.Dr.Aydın Alatan

Max Planck Institute for Dynamics and Self-Organization

 $\mathbf{July}\ \mathbf{2023-September}\ \mathbf{2023}$

Research Intern

Göttingen, Germany

• Have worked 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.

ESEN System Integration

July 2022 - August 2022

In tern

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.

DrSistem Virtual Health Consultancy Program

 $\mathbf{July}\ \mathbf{2019} - \mathbf{September}\ \mathbf{2019}$

Volunteer Summer Intern

Antalya, Turkey

- Used computer vision and trained deep learning models to segmentate radiological data.
- Trained a neural network to detect symptoms of parkinson on hand drawings of users.
- Helped the development of the online virtual consultancy program.

Simple Robotics and Electronics

June 2017 - October 2017

 $Volunteer\ Summer\ Intern$

Antalya, Turkey

- Developed various IOT applications using Arduino and Raspberry Pi platforms.
- Developed small competitive mini sumo-line follower robots.
- Gained 3D printing, pcb design and prototyping experience.

References

Professor Dr. A. Aydın Alatan

Faculty of METU EEE, Founding director of METU OGAM $\,$

Contact: alatan@metu.edu.tr +90 (312) 210-2351

Post-doc at Max Planck Institute for Dynamics and Self-Organization

Contact: zierenberg@ds.mpg.de +495515176475

Dr. Johannes Zierenberg

Honors and Awards

First Place | First Place, METU Aerospace Engineering Department-Boeing

November 2021

• As METU Göksat Space Team we have taken first place in the METU VTOL competition sponsored by Boeing. The objective was to design-build and fly a VTOL aircraft to accomplish various payload missions.

Second Place and Best Presentation | Havelsan-T3 Foundation

September 2021

• As METU GÖKSAT Space Team, we have taken the second place and the best presentation award amongst 112 teams in the Swarm UAV competition held by Havelsan in the scope of 2021 Teknofest technology competitions. Teams were expected to demonstrate developed swarm systems' robustness using multiple quadcopters (Crazyflies) indoor.

Third Place | Pixery Hackathon IEEE METU

January 2020

• Our team has taken the third place in 48 hours Pixery Hackathon IEEE METU. Our project aims to help visually impaired people for walking. We used computer vision, machine learning and android technologies to construct our prototype.

First Place | Akdeniz University

May 2019

• The research project about real-time artificial intelligence process on UAV. The project won the first place in the technology category in the Akdeniz University Prof.Dr.Fuat Sezgin 3rd Inter-High School Mathematics and Science Project Competition.

Second Place | TUBİTAK

March 2018

• The research project won the second place in the coding category in the TUBITAK Inter-High School Research Projects Competition. Project name: Developing Cube Satellites on Femto Class Intended Fundamental Space Research.

First Place | National Ministy of Education-TUBITAK

May 2017

• 11. International MEB Robotics Competition in Design and Run (like Hackathon) Category

Leadership / Extracurricular

METU Göksat Space Team

January 2020 - November 2021

Team Leader

Techical Student Team

- Leader of METU Göksat Space Team which attend national and international aerospace-based student competitions. Responsible for organization and running of the four different subteam which are electronics/software, organization/sponsorship, mechanical, aerospace and integration subteams.
- Electronics/Software Subsystem Designer. Designed electrical subsystem of a mini UAV. Designed electronics and PCB's for avionics of three different model satellites. Developed embedded software for model satellites. Taken responsibility for the simulation of the swarm drones.
- In 2021 the team has attended four competitions which are (Teknofest) Model Satellite competition organized by Turksat , (Teknofest) International UAV competition organized by Tubitak and Turkish Aerospace [got 5th place amongst 269 competitors], (Teknofest) Swarm UAV competition organized by Havelsan and VTOL UAV competition organized by METU AEE Department in cooperation with Boeing.
- In 2020 the team attended (Teknofest) Model Satellite competition organized by Turksat and International CANSAT (Model/Can-Sized Satellite) competition organized by AAS supported by NASA.

Antalya Anatolian High School Physics Society

October 2016 - June 2018

Science Club Co-President

- Was co-president of the Physics society for two years.
- Organized various events such as sky observation nights, conferences, Pi days, science fair experiments.
- Established society room and robotics division.

Technical Skills

Languages: Python, MATLAB, C

Technologies/Frameworks: OpenCV, PyTorch, Git, Intel lava, EAGLE (PCB design), WordPress, HTML/CSS

Interests

Turkish Classical Music (Soloist at ODTÜ KTMT), Astronomy, Motorsports, Football