

Batuhan Avcı

Motivated to explore new frontiers in machine learning, robotics and control. Aiming to make significant contributions to these dynamic fields by involving in the cutting-edge research projects.

Born in Türkiye, May 26th, 2000

📍 Välimerenkatu 5C 131, 00180 Helsinki, Finland

☎ +358 417236901

✉ batuhan.avci@aalto.fi

✉ baavci13@gmail.com

🌐 [linkedin.com/in/batuhanaavci](https://www.linkedin.com/in/batuhanaavci)

🐙 github.com/batuhanaavci

🎓 Google Scholar Profile



EDUCATION

Aalto University

MSc. Electrical Engineering - GPA: 4.78/5

- Major: Control, Robotics and Autonomous Systems
- Minor: Machine Learning and Artificial Intelligence
- Granted with 100% scholarship

09 2023 – Present

Espoo, Finland

Istanbul Technical University

BSc. Control and Automation Engineering - GPA: 3.64/4 - Ranked 2nd

- Graduation Project: *Constructing Prediction Intervals with Deep Learning and Fuzzy Logic Systems*

08 2019 – 06 2023

Istanbul, Türkiye

TEVITOL High School

Merit Based Scholarship for Gifted Children - GPA: 95.1/100

09 2014 – 06 2019

Istanbul, Türkiye

RESEARCH & TEACHING

Aalto University Department of Electrical Engineering

Teaching Assistant

- Worked for ELEC-E8101: Digital and Optimal Control course taught by Prof. Dominik Baumann
- Responsibilities: handling exercise sessions, proposing exam/quiz questions and grading

08 2024 – 12 2024

Helsinki, Finland

Aalto University Department of Computer Science

Research Assistant

- Worked in Computational Systems Biology research group led by Prof. Harri Lähdesmäki
- Researched continuous-time reinforcement learning methods
- Completed a project named Continuous Time Reinforcement Learning Using True System Dynamics

06 2024 – 08 2024

Helsinki, Finland

ITU Artificial Intelligence and Intelligent Systems (AI²S) Laboratory

Research Fellow

- Funded by Turkish Academy of Sciences
- Oriented my focus of interest into uncertainty quantification and its integration to deep learning and fuzzy sets and systems
- Focused on convolutional neural networks (such as R-CNN, YOLO) and their applications of face recognition and tracking tasks

09 2020 – 06 2023

Istanbul, Türkiye

PUBLICATIONS

1. H. E. Dursun, E. C. Güven, **B. Avcı**, and T. Kumbasar, “Recognizing and Tracking Person of Interest: A Real-Time Efficient Deep Learning Based Method for Quadcopters,” in *10th International Conference on Recent Advances in Space Technologies (RAST)*, Istanbul, Turkey, 2023. **Code** [↗](#)
2. **B. Avcı**, A. Beke, and T. Kumbasar, “Towards Reliable Uncertainty Quantification and High Precision with General Type-2 Fuzzy Systems,” in *Proceedings of the IEEE International Conference on Fuzzy Systems*, Songdo Incheon, Korea, 2023.

EXPERIENCE

- ASELSAN Inc.** 07 2022 – 09 2022
Control Systems Design Intern Ankara, Türkiye
- Worked on Texas Instruments Robotics Kit
 - Mainly dealt with the implementation of PID controllers on embedded robotics systems
- BAYKAR Technologies** 07 2021 – 09 2021
Artificial Intelligence Intern Istanbul, Türkiye
- Worked in a project named *Localization of Unmanned Aerial Vehicles (UAVs) in GNSS Denied Environments*
 - Implemented a particle filter based visual odometry framework
 - Completed a time series prediction task on UAV sensor data

TECHNICAL SKILLS

Languages: Python, MATLAB, R, C++
Skills: TensorFlow 2, PyTorch, Linux, ROS2, OpenAI Gym, Git,
Research Interests: Machine Learning, Deep Learning, Computer Vision, Control Theory, Robotics

VOLUNTEERING & COMPETITIONS

- FIRST Robotics Competition** USA and Türkiye
- **Mentor of the FRC Team 9436** 07 2023 – Present
 - * Assisting teams in overcoming technical challenges and strategic planning
 - * Conducting workshops and training sessions to improve team skills
 - **Volunteer as Referee** 03 2020 – 05 2023
 - * Supported event management and various organizational tasks
 - * Advocated for STEM education through community outreach and engagement
 - **Team Member at Inanc Mechatronics Club** 10 2014 – 06 2017
 - * Contributed to the design, building, and programming of robots
 - * Competed in the FIRST Lego League and FIRST Robotics Competition at international level
 - * Participated in the **World Championship in St. Louis, USA**, showcasing technical and teamwork skills
 - * Honored with the **Excellence in Engineering Award** for innovative solutions.
 - * Achieved 2nd place in the national tournament, highlighting team success in robotics engineering

CERTIFICATIONS

- **Inzva Applied AI Study Group Participation** [↗](#) 10 2023
- **Mathworks Excellence in Innovation Projects Participation** [↗](#) 10 2023
- **Google TensorFlow Developer Certificate** [↗](#) 11 2022
- **Inzva Machine Learning Bootcamp Participation** [↗](#) 09 2022

SCHOLARSHIPS

- **Turkish Education Foundation Western Europe Postgraduate Studies Grant** [↗](#) 06 2023
- **Aalto University Scholarship** [↗](#) 03 2022
- **Turkish Academy of Sciences Research Scholarship** 09 2022
- **Turkish Education Foundation Merit Based Scholarship for Gifted Students** [↗](#) 08 2014 - 06 2019

REFERENCES

Available upon request.