

Selahaddin HONİ

001honi@gmail.com | 001honi.github.io

ABOUT

I have a background in deep learning and its applications in computer vision, I am also confident and curious to apply my AI/ML skills in other domains as well. I have experience with various open-source frameworks for data analysis, learning and visualization.

EDUCATION

Istanbul Technical University Istanbul, Turkiye
Master • Telecommunications Engineering ~

Long-term Exchange Program

KAIST — Korea Advanced Institute of Science and Technology Daejeon, Korea
• I was a visiting researcher in Vision and Learning Lab supervised by Prof. Seunghoon Hong. 2023
• I completed several courses on deep learning and computer vision. 2022

Istanbul Technical University Istanbul, Turkiye
Bachelor • Electronics & Communications Engineering • GPA: 3.54 / 4.00 (89%) 2022

Advisor: Prof. Bilge Günsel **Thesis:** Long-term person tracking via deep learning

EXPERIENCE

Visiting Student Researcher in KAIST Daejeon, Korea
Vision and Learning Laboratory July, 2023 ~ December, 2023

Visual Token Matching (VTM) is a general-purpose few-shot learner for arbitrary visual dense prediction tasks, as proposed by a lab mate in an outstanding paper in ICLR'23. However, VTM cannot handle temporal information, which hinders its performance in video domains. In my internship, I enhanced VTM's generalizability by incorporating time attention into its framework. Empirical results show that the method surpasses the baseline VTM when a very limited support set is available. Specifically, the method achieves 8.89% and 4.37% higher accuracy than the baseline in 1-shot and 2-shot scenarios, respectively, on the DAVIS2016 video segmentation dataset.

Undergraduate Researcher in Istanbul Technical University Istanbul, Turkiye
Multimedia Signal Processing and Pattern Recognition Research Group August, 2021 ~ March, 2022

We created a novel inference architecture that leverages re-identification features for data association in visual object tracking for long-term videos. Our tracker provisionally matched the state-of-the-art performance within the scope of person tracking in the Visual Object Tracking – Long Term 2021 benchmark.

Intern in TUBITAK BILGEM (Sci. & Tech. Research Council of Turkey) Kocaeli, Turkiye
Communication & Signal Processing Lab. July ~ September, 2020

Our team created an end-to-end communication channel for a control model using GNU Radio. We built physical, data link, network, and transport layers and applied basic modulations on LimeSDR hardware.

Intern in HAVELSAN Inc. Ankara, Turkiye
Big Data & Artificial Intelligence Section May ~ June, 2020

I led a visual gesture recognition project, created a custom dataset and a real-time app, and won an innovation award.

Intern in BAYKAR Technologies Istanbul, Turkiye
Control Simulation & Embedded Software Dept. June ~ September, 2019

Our team created a web platform for converting embedded C code to C# code.