Selahaddin HONİ

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Daejeon, Korea

**EDUCATION**

**KAIST** **— Korea Advanced Institute of Science and Technology** Daejeon, Korea

Joint Master & PhD **·** School of Computing 2024

**Advisor:** Prof. Junehwa Song

**·** I was a visiting researcher in Vision and Learning Lab supervised by Prof. Seunghoon Hong. 2023

**·** I completed several courses on AI and its applications as an exchange student. 2022

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**Istanbul Technical University** Istanbul, Turkiye

Bachelor **·** Electronics & Communications Engineering **·** GPA: 3.54 / 4.00 2022

**Advisor:** Prof. Bilge Günsel **Thesis:** Deep learning for long-term visual tracking of people

**EXPERIENCE**

[**Graduate Student Researcher in KAIST**](https://nclab.kaist.ac.kr/)Daejeon, Korea

**NC Laboratory** April, 2024 ~

I research on the design of human-centered computational systems in collaboration with AI to drive meaningful societal impact.

[**Visiting Student Researcher in KAIST**](https://vllab.kaist.ac.kr/)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**](https://mspritu.github.io/)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 Turkiye)**](https://bilgem.tubitak.gov.tr/en)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.**](https://www.havelsan.com.tr/en)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**](https://www.baykartech.com/en/)Istanbul, Turkiye

**Control Simulation & Embedded Software Dept.** June ~ September, 2019

My team deployed a web platform for converting embedded C code to C# code.