

# 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

**Research Interest:** Applied AI · Interactional & Social Computing · Mobile, IoT and Wearable Computing

**KAIST · Exchange Student & Visiting Student Researcher** 2023

**Istanbul Technical University** Istanbul, Türkiye  
Bachelor · Electronics & Communications Engineering · GPA: 3.54 / 4.00 Graduated in 2022

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

## EXPERIENCE

**Graduate Student Researcher in KAIST** Daejeon, Korea  
**NC Laboratory** Apr 2024 to Present  
I research on the design of human-centered computational systems in collaboration with AI to drive meaningful societal impact.

**Visiting Student Researcher in KAIST** Daejeon, Korea  
**Vision and Learning Laboratory** Jul 2023 to Dec 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, Türkiye  
**Multimedia Signal Processing and Pattern Recognition Research Group** Aug 2021 to Mar 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 Türkiye)** Kocaeli, Türkiye  
**Communication & Signal Processing Lab.** Jul 2020 to Sep 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, Türkiye  
**Big Data & Artificial Intelligence Section** May 2020 to Jun 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, Türkiye  
**Control Simulation & Embedded Software Dept.** Jun 2019 to Sep 2019  
My team deployed a web platform for converting embedded C code to C# code.