F. Melih Dal linkedin.com/in/ ferhat-melih-dal/ ferhatmelih@gmail.com ferhatmelih.github.io +31627555797

> Eindhoven The Netherlands

F. Melih Dal

Software Engineer & Researcher

Education

2019 - 2022, Bogazici University, Istanbul, Turkey

Masters in Computer Engineering

Courses:

 Pattern Recognition. Testing and Verification of ML Systems. Robotics. Computer Vision for Autonomous Vehicles.

Thesis:

• Driver Behavior Modeling on Highways.

Extra-curricular:

• Founder of BURST: Bogazici University Robotics Team. Entered local autonomous vehicle challenges.

2013 - 2017, Bogazici University, Istanbul, Turkey

Bachelor of Science in Electrical & Electronics Engineering.

Bachelor Thesis:

• Independent Component Analysis on fMRI data on patients with Dementia 2008 - 2013, American Robert College, Istanbul, Turkey Science Diploma. High School

Experience

October 2022 - Current , *Software Design Engineer*, ASML, Veldhoven, NL Responsibilities:

- State machine design using formal verification
- Metrology expose sequence sub function software design

January 2019 - September 2022, Simulation Software Engineer, Eatron Technologies, Istanbul,TR

Responsibilities:

- Development of simulation software for testing/verification and validation of Advanced Driver Assistant Systems, ADAS
- Human driver modeling in simulations.
- · Generation of critical scenarios
- Importing real world maps into simulation
- Sensor modelling, RADAR, ultrasonic sensor, smart camera
- Development of co-simulation environment between Unreal Engine and Matlab/Simulink for controls

June 2017 - December 2018, Research Engineer, Canovate High Techlogy, Istanbul,TR

Responsibilities:

- Thermal imaging analysis
- Forest fire detection systems: Worked with HMM and classical Computer Vision methods for fire detection using IR and RGB cameras. Under the guidance of Assoc.Prof. Ugur Toreyin.
- Development of surveillance systems with thermal imaging cameras.

Fellowships/Awards

2021, Teknofest Robotaxi

Best Software Solution in student autonomous vehicle competition.

2019, Mercedes Benz Hackathon Winner

Smart Mobility Hacathon. Developed an application for communication of different platoons.

2017, Istanbul Municipality Smart City Competition Finalist

Developed a computer vision based solution to traffic light optimization.

2018, Young Scholar Global Relations Forum

2015, Fellow, Turkish Entrepreneurship Foundation

2013, 7500/1.5m students, Turkish University Entrance Exam

2008, 242/1.0m students, Turkish High School Entrance Exam

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Publications

- Ozturk et. al, *Investigating Value of Curriculum Reinforcement Learning in Autonomous Driving Under Diverse Road and Weather Conditions*IEEE, Intelligent Vehicles Symposium, 2021.
- Dal et.al, BURST: Solutions of an Autonomous Vehicle. IEE SIU, 2020.
- Ozturk et. al, Development of A Stochastic Traffic Environment with Generative Time-Series Models for Improving Generalization Capabilities of Autonomous Driving Agents, IEEE, Intelligent Vehicles Symposium, 2020.

Programing Skills

- C++ and Python: 9 years active experience. Proficient
- Pytorch Deep Learning Framework
- · Matlab/Simulink Used in many class assigments
- ROS: Almost every aspect of ROS covered in projects
- Unreal Engine/Gazebo: Used and designed for robotics simulations
- Proponent of Test Driven Development, TDD

Languages

- Turkish Mother Tongue
- English- Proficient
- Dutch A1