ALI DEMIR

Mechatronics Engineer

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EXPERIENCE

ADAS Development Leader
TOFAS (Fiat - Chrysler Automobiles)
Dec 2018 – Present | Bursa, Turkey

Computer Vision Consultant (Contractor)
KocSistem
Aug 2018 – Dec 2018 | Istanbul, Turkey

ITEA: INSIST (Integrated Service Delivery for Citizens' Safety and Comfort) Project (for more info: https://itea3.org/project/insist.html)

- **Face Detection and Recognition** on SBCs
- **Pedestrian Detection and Tracking**
- **Crowd Analysis**
- Vehicle Detection and Traffic Analysis on SBCs

ADAS Development Engineer
Progin Bilisim
Sept 2016 – Aug 2018 | Istanbul, Turkey

- TUBITAK - 1507: Development of **Computer Vision Aided Lane Departure Warning System (LDWS) for Semi Autonomous Vehicles**.
- TUBITAK - 1511: Development of **Vehicle Platooning System** with V2V Communication
- Development of Neural Network based **E - Horizon System** for Commercial Vehicles

Algorithm Development Engineer
GDS Muhendislik ARGE
Oct 2014 – Aug 2016 | Istanbul, Turkey

- TUBITAK - 1507: Algorithm Side of Ship Main Engine Systems Simulation Project
- Ministry of Science, Industry and Technology: Development of Medical Training Equipment

Project Intern
TOFAS (Fiat - Chrysler Automobiles)
Jun 2014 – Sept 2014 | Bursa, Turkey

- Development of Production Quality Control System via Image Processing
- EU 7th FP Project: AUTORECON (https://cordis.europa.eu/project/rcn/101385_en.html)

PUBLICATIONS (3 OF 4)

- A. Demir and V. Sezer, "Motion Planning and Control with Randomized Payloads Using Deep Reinforcement Learning," 2019 **Third IEEE International Conference on Robotic Computing (IRC), Naples, Italy**, 2019, pp. 32-37. (*Invited for journal with further improvements*)
- A. Demir and V. Sezer, "Intersection navigation under dynamic constraints using **deep reinforcement learning**," 2018 6th CEIT, **IEEE**, Istanbul, 2018. (*Invited for journal with further improvements*)
- A. Demir, M. Erdem and V. Sezer, "Design and Experimental Validation of a Low Cost Autonomous Vehicle Testbed," AAT Conference, Istanbul, 2016, pp. 174 - 178.

EDUCATION

M.Sc. in Mechatronics Engineering, Istanbul Technical University
Completed, GPA: 3.50, Thesis Title: "Motion Planning and Control with Randomized Payloads Using Deep Reinforcement Learning"

B.Sc. in Mechatronics Engineering, Okan University
GPA: 3.35

ACHIEVEMENTS

Honors Degree (B.Sc.)
Ranked as 4th Most Successful in His Class.

Student Representative in University Congress
Representative of Electrics and Electronics Engineering Department from 2010 to 2012

SKILLS

English (YDS:86.25)

Deep Learning
Machine Learning
OpenCV
Tensorflow
ROS

Python
Matlab
Simulink
Linux
C / C++
LabView
Arduino/RaspberryPi etc.

INTERESTS

AI and Robotics | Autonomous Vehicles | ADAS | Deep Learning | Deep Reinforcement Learning | Computer Vision