Onur Berk Töre

Istanbul, Turkey
otore19@ku.edu.tr
onurtore
onurtore

Education

2019 **M.Sc. in Computer Engineering**, *Koç University*.
Autonomous, Learning and Interactive Agents Research Laboratory

2014-2019 **B.Sc. in Computer Engineering**, *Yeditepe University*, 3.35/4.0.
Robotics and Intelligent Systems Laboratory

Research & Development Experience

2019 **Researcher**, *ALIVE Laboratory, Koç University*.

2018 **Undergraduate Researcher**, *Robotics & Mechatronics Laboratory, Koç University*.
- Worked on the electrovibration effect on a haptic touchscreen interface and investigated the geometric transformations of the fingerprint under this effect.
- Showed the change in the shear strain values of fingerprint under the electrovibration effect.

2017 **Software Developer**, *Yeditepe University*.
Erasmus+ KA203 Strategic Partnership Project
Title: Timeline Travel, An Alternative Tool for Architectural History Learning and Teaching
More Info: timelinetravelproject.gantep.edu.tr
- Core developer of the team, worked together with a Ph.D. student to build TTravel tool, an interactive 2D dynamic map creation plugin designed for web.

2016 **Undergraduate Researcher**, *Robotics & Intelligent Systems Lab., Yeditepe University*.
- Modify 2D physics engine.
- Implemented potential field and wavefront path finding algorithms in C++.
- Applied haptic rendering for rigid body simulation on Geomagic Touch devices.
- Performed teleoperation for haptic devices via connection over the network.

Teaching Experience

2018-2020 **Teaching Assistant**, *Koç University*.
- Introduction to Artificial Intelligence (COMP341)

2016-2017 **Undergradute Lab Assistant**, *Yeditepe University*.
- Data Structures (CSE 211), C++
- Fundamentals of Computer Programming (CSE 114), C

Undergraduate Projects

Summer Project.
- Markerless gesture control of a mobile robot, C++, ROS, Ubuntu, Leap Motion SDK.
- Real time person tracking and following, OpenCV, KFC algorithm.
- Line follower mobile robot via IR and buffer sensors.

Course Projects.

- **Operating Systems Design**: Modification to Linux 2.4 kernel scheduler and performance analysis of the new scheduler, C.
- **Introduction to Artificial Intelligence**: Implementation of minimax algorithm with alpha beta pruning to checkers-like game, C++.
- **Computer Security**: Implementation of authentication, confidentiality and compression services to file transfer application, Java.
- **Data Communications and Computer Networks**: Transport layer anonymization of video broadcast application, Java, C.
- **Programming Languages**: JSON to XML converter, Lex, Yacc, C.
- **Data Structures**: Huffman algorithm for txt files, C++.
- **Systems Programming**: M6800 Assembly interpreter, C.
- **Software Testing**: Applied Code Inspection, Desing by Contract analysis, Code-coverage tests, Equivalence tests and Unit tests on a Java class.

Languages

- **Turkish:** Native
- **English:** C1 CEFR (TOEFL: 103/120, IELTS: 7.5/9.0)

Technologies

- **Languages:** C++, C, Java, Python, MySQL, Matlab, Javascript, PHP
- **Software:** ROS, Gazebo, Weka, OpenCV, OpenHaptics, OpenInventor, Visjs, Leaflet, LeapMotion SDK, SUMO, Boost, Bootstrap