Kazim Selim Engin
Ph.D. Student
100 Union St. SE Minneapolis, MN

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engin003@umn.edu
http://z.umn.edu/ksen

Education

- **University of Minnesota** — Minneapolis, MN
  Ph.D. Student in Computer Science and Engineering — *Sept 2016 - present*
  Advisor: Prof. Volkan Isler

- **Sabancı University** — Istanbul, Turkey
  B.S. in Mechatronics Engineering — *Sept 2012 - June 2016*

Research Experience

- Samsung Research Artificial Intelligence Center — New York City, NY
  Research Intern — *Jan 2019 - Aug 2019*
  - Single and multi-view 3D reconstruction, learning object representations, object part decomposition from images, velocity controller for visual servoing of a manipulator robot

- Robotic Sensor Networks Lab — Minneapolis, MN
  Graduate Student — *Sept 2016 - present*
  - Approximation algorithms and online strategies for network formation of a multi-robot system
  - Localization of a target using multiple UAVs equipped with bearing-only sensors

- Knowledge Representation and Reasoning Group — Istanbul, Turkey
  Undergraduate Researcher — *Sept 2015 - June 2016*
  - Developed an action planner to rearrange cluttered objects so as to grasp an initially unreachable object

- Joint Institute of Engineering, SYSU-CMU — Guangdong, China
  Undergraduate Research Intern — *June 2015 - Sept 2015*
  - Worked on parameter identification and state of charge estimation of deteriorated batteries

- Automation and Information Systems, Technical University of Munich — Munich, Germany
  Undergraduate Research Intern — *July 2014 - Sept 2014*
  - Traffic signalization and control using MATLAB Stateflow
  - Conveyor band automation using various sensors and actuators

Publications

1. S. Engin, E. Mitchell, D. Lee, V. Isler, D. D. Lee, Higher Order Function Networks for View Planning and Multi-View Reconstruction, *International Conference on Robotics and Automation (ICRA)*, 2020.

2. E. Mitchell, S. Engin, V. Isler, D. D. Lee, Higher Order Function Networks for Learning Composable 3D Object Representations, *International Conference on Learning Representations (ICLR)*, 2020.

3. S. Engin, V. Isler, Asynchronous Network Formation in Unknown and Unbounded Environments, *International Conference on Robotics and Automation (ICRA)*, 2019.

4. S. Engin, V. Isler, Minimizing Movement to Establish the Connectivity of Randomly Deployed Robots, *International Conference on Automated Planning and Scheduling (ICAPS)*, 2018.

5. H. Bayram, N. Stefas, S. Engin, V. Isler, Tracking Wildlife with Multiple UAVs: System Design, Safety and Field Experiments, *IEEE International Symposium on Multi-Robot and Multi-Agent Systems (MRS)*, 2017.

Honors

- Cedar Creek Ecosystem Science Reserve Fellowship (2018)
- UMN Graduate School Fellowship (2017)
- Sabancı University Scholarship (2012-16)

Teaching Experience

CSCI 1133 - Introduction to Computing and Programming Concepts (Spring 2017, Fall 2017):
GitHub organization setup for the class, preparing assignments, grading/auto-grading and interviewing students

Professional Services

Reviewer for IROS, ICRA, NeurIPS, ICLR

Technical Skills

Python, C++, PyTorch, Matlab/Simulink

Coursework

- Advanced Algorithms & Data Structures
- Matrix Theory
- Machine Learning
- Multiview 3D Geometry in Computer Vision
- Autonomous Mobile Robotics
- Sensing and Estimation in Robotics
- Computational Geometry
- Optimal Filtering & Estimation
- Linear Systems Optimal Control
- Artificial Intelligence