# Ulaş Sert

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#### **EDUCATION**

MSc. Computer Science and Engineering,

September 2017 - December 2020

Koç University, İstanbul

3.54 GPA

Advisor: Prof. Deniz Yuret

Thesis Topic: Learning Bridge Bidding with Deep Reinforcement Learning

Bachelor of Computer Science, Bilkent University, Ankara September 2012 - June 2016  $3.12~\mathrm{GPA}$ 

### **EXPERIENCE**

Research Assistant

September 2017 - December 2020

# Koç University AI Lab., İstanbul

- Researching topics relevant to current artificial intelligence technologies focused on Deep Reinforcement Learning and Game Theory.
- Other research experience includes: machine learning, deep learning and natural language processing.

Teaching Assistant

September 2017 - December 2020

## Koç University, İstanbul

• Providing assistance to the course instructors with problem session and exam conduction, grading and office hours for the students.

Teaching Assistant

January 2016 - June 2016

## Bilkent University, Ankara

• Provided assistance to the students to overcome difficulties of the lab work with lab oversight, topic explanation and light tutoring in the relevant topics.

### Software Engineering Intern

August 2015

### VeriPark, Izmir

- Trained in Microsoft .NET technologies and developed an accounting web application aimed to simplify the approval and documenting process of the Accounting team for the company expenses.
- Both training and development heavily focused on .NET MVC Framework and MsSQL technologies.

Software Engineering Intern

June 2015 - July 2015

### OBSS, İstanbul

- Developed and deployed a Human Resources focused web application to handle and ease the process of hiring and screening of the potential hires.
- The application was primarily developed in Java with Spark framework, used LDAP and REST API for authentication and MongoDB for the primary database.

## LITERATURE

Ulaş Sert. 2020. Training a Bridge Bidding Agent using Minimal Feature Engineering and Deep Reinforcement Learning. M.S Thesis. Koç University, Istanbul. ulassert.net/bridgebidding.pdf

Cemil Cengiz, Ulaş Sert, and Deniz Yuret. 2019. KU\_ai at MEDIQA 2019: Domain-specific pre-training and transfer learning for medical NLI. In Proceedings of the 18th BioNLP Workshop and Shared Task, pages 427-436, Florence, Italy. Association for Computational Linguistics.

#### **PROJECTS**

Deep Learning based Image Colorization November 2018 - January 2019 Machine Learning system that adds color data into black and white images.

• Collected supervision data and developed a CNN based supervised learning model using Python and Tensorflow.

# AlphaZero on Gomoku

February - May 2018

Reinforcement Learning from scratch on the board game Gomoku

• Replication Study on the AlphaZero on a much simpler game than Go, using Julia and Knet.

Kebap Tycoon - Bachelor Senior Project

September 2015 - June 2016

Food establishment simulation game

- Designed architecture of the majority of the project and programmed more than a third of the project.
- Developed using Java with LibGDX game engine for the client side and MySQL and PHP for the server side.

Intelligent Pacman

January 2016 - June 2016

Classic Pacman game with a self-playing AI

• Developed a general game playing strategy using C# with potential to improve upon itself with genetic algorithms.

Ensage 2014 - 2015

Automation Framework and Scripts for a popular action-strategy game

 Developed and maintained diverse libraries and scripts using Lua, C# and minimal C++ for an active user base.

#### **AWARDS**

Demonstration Award at the Bilkent CS Fair.

2016

Awarded for Kebap Tycoon.

**2nd place** at E-BİKO International IT Olympiad.

2010

**2nd place** at İzmir Region of TÜBİTAK High School Research Competition. Awarded for Hardware designed to transfer files between storage devices.