# ONUR SEFA OZCIBIK

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#### **EDUCATION**

2017 - 2022

Bogazici University Computer Engineering, BS GPA: 3.33/4.0

### RESEARCH AND WORK EXPERIENCE

# Deep Learning Engineer

February 2021 - Present Istanbul, Turkey

Masraff

- Designed, implemented, and built deep learning models for real-life problems using RNN, CNN, LSTM, and Attention.

- Worked on information extraction, object detection, and document classification problems.
- Researched state-of-the-art methodologies from conference papers and adapted them to our projects.

### CoLoRs AI Lab Participant

September 2022 - Present

Bogazici University

- Attended weekly meetings in which presentations of current Lab projects and AI papers were held.
- Offered and started working on a reinforcement learning project that establishes balances of items regarding rotations of the surface.

### NLP Lab Participant

June 2021 - November 2021

Bogazici University

- Attended weekly meetings and inspected NLP projects and datasets built for the Turkish language.
- Worked on several preprocessing projects to refine them.

### Deep Learning Researcher Intern

February 2021 - March 2021

MotiWe

- Worked on an object detection project that discriminates supermarket items lying on shelves.
- Worked on a labeling tool for an automobile production line checker project.

#### Deep Learning Intern

August 2020 - October 2020

Sestek

- Introduced to the ML and DL concepts. Prepared base deep learning vision projects.
- Worked on a semi-supervised audio classifier project which recognizes spoilt factory machines by their sounds. Encountered an autoencoder structure in this project for the first time.

# FrontEnd Developer

January 2019 - January 2020

DogGo

- Prepared a webpage for adopting dogs from shelters. Used React, Redux, and Sass.

#### TEACHING EXPERIENCE

### Student Assistant, Principles of Programming Languages

February 2021 - July 2021

Bogazici University

Istanbul, Turkey

- Prepared a homework project to enhance students' logical programming knowledge.
- Prepared a dataset, answer sheets, documentation, and meetings.
- Attended problem sessions, responded to student questions, and exemplified solution methodologies.

#### MAIN PROJECTS

Some of my projects are listed here. Other projects and details of the listed projects can be found in my web page.

### **Graduation Project**

I offered and worked with my colleague on Generating Art using Generative Adversarial Networks because I am interested in art and vision. I inspected several open-source notebooks and used the VQGAN model. I implemented a methodology that examines images part by part in every iteration step. I have enhanced previous loss functions used by some notebooks and refined the algorithms to fit the model to comparably small hardware. We have prepared semi-automated and automated pipelines and prepared an example conference paper.

# Advanced NLP Course Term Project

I attended NLP master classes for two semesters at Bogazici University and prepared a question-answering model built on the BERT with my classmate. We inspected several conference papers and made presentations to other class members. Also, I inspected other group projects in the meantime. We have trained the two-phased model in an end-to-end manner and wrote an example conference paper.

### Address Detection Project

The project aimed to detect address lines from expense documents using object detection methodologies. I have offered to use heatmaps to exploit related lines. I used the DenseNet architecture in the encoder part of the autoencoder. Because expense images do not include distinct vision features, I embedded OCR findings to distinguish the characteristics of the address lines.

### VKN Number Detection Project

Expense documents include the VKN number in Turkey, and I aimed to find this number using deep learning NLP techniques. I detected candidates using regex and embedded them with their neighboring words to ease identification. I discovered that using cosine similarity followed by the autoencoder method dramatically increases accuracy. I did the necessary preprocessing and testing tasks.

### **EXTRA-CURRICULAR ACTIVITIES**

- My interest in art started when I was in high school. I have been doing oil paintings for five years. I use them to express my inner feelings that sometimes I didn't aware of. Some of my artwork can be found on my Instagram and web pages.
- Whenever I find an opportunity, I go camping with my friends. We generally go, whether west of Istanbul or southwest of Turkey. Also, biking in Istanbul helps me to rest my thoughts. Biking through the coastline in summer evenings makes me feel excellent.