# Cemre Efe KARAKAS

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## **EDUCATION**

Computer Engineering BSc Boğazici University

09/2017 - 01/2022 GPA: 3.25 / 4.00

Machine Learning, Applied Computer Networks, Introduction to Database Systems, Information Retrieval

Exchange Semester CentraleSupélec 01/2021 - 06/2021

Cloud & Distributed Computing, Agile Management of Complex Projects, High Performance Simulation

#### **EXPERIENCE**

Udemy Software Engineering Intern 07/2021 - Present

Working as part of the Communications team. Developing solutions to optimize Udemy's communication pipelines using **Django** & **Kotlin**. Writing unit tests to ensure the integrity of new releases. Monitoring releases through **Datadog**.

Boğaziçi University CATLAB Undergraduate Researcher 12/2020 - Present

TÜBİTAK Intern Researcher Scholarship holder.

Working with <u>Pinar Yanardag</u> from MIT on GAN inversion & latent space manipulation methods using **PyTorch**, such as finding meaningful directions in the latent space and output manipulation based on labeled directions found by supervised / unsupervised methods.

Tazi AI Systems Software Engineering Intern 06/2019 - 09/2019

Using **Scala**, implemented a Multivariate Gaussian Process Regressor that offers budget limitations and is online trainable and runtime significantly. This model is now deployed and it is being used by Tazi's main product.

Implemented a data dashboard tool with React.

## **LANGUAGES**

Turkish (Native) French (C1) English (C1) Spanish (B2)

### **PROJECTS**

CCTV mask usage detection Individual Project 03/2020 - 04/2020

Collected data using **OpenCV** Labeled data with a simple labeling tool coded in tkinter. Created a **Keras** model to classify people into masked and non-masked. Collected data for several days to track changes in mask usage habits in Istanbul. Was contacted by the Istanbul Municipality R&D team for possible future collaborations.

Lisan language learning Individual Web App Project 05/2020 - Ongoing (Maintenance)

Used **Django** to develop a full-featured language learning app called Lisan, complete with a forum, courses, units, tips, lessons, word by word translations and question discussions. Lisan offers courses for different languages with support for multiple base languages. The project is deployed with **Heroku** and uses **Celery** for periodic tasks.

Collaboration Platform Front End Developer

09/2020 - 02/2021

Was one of the 3 front end developers on the Akademise academic collaboration platform team, where we used **React**, **HTML** and **CSS** to implement the front end of the web app. This project was developed for our 'Project Development in Software Engineering' course.

Image generation w/ GANs Project Lead 08/2019 - 11/2019

Led a team of three engineering students in a group project. We implemented a GAN model using Masked Residual Unit layers. I managed the team and implemented necessary custom layers using **Keras** and took part in creating the model structure.

### **TECHNICAL SKILLS**

Python, Java, C++, JS, Scala, SQL

Django, Flask, React, Axios, Celery, Redux

Keras, PyTorch, Sklearn, Feature Extraction Logistic Regression, Decision Trees, SVMs, PCA

Cloud Computing, Docker, Kubernetes

Linux, Git