# BERK ALI CAM

# CONTACT

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## SKILLS

- Implementation of computer vision tasks using frameworks like Pytorch, Tensorflow, and Transformers
- · Implementation of deep learning techniques in image based Generative AI field
- Deployment and maintenance of ML applications using technologies like Docker and AWS
- Employment of DevOps with Github Actions
- Full-stack web development:
  - Front-end: HTML & CSS , Javascript, React
  - o Back-end: PHP, MySQL, Flask
- Robot manipulation & perception with ROS

## LANGUAGES

English ——— Turkish -

German —

# EDUCATION

Msc. Mechatronics 2022 - 2025

#### Hamburg University of Technology | Hamburg

Bsc. Mechanical Engineering 2015 - 2021

**Dokuz Eylul University | Izmir** 

2019 - 2020

Bsc. Mechanical Engineering Duisburg - Essen University | Duisburg (Erasmus Exchange Programme)

# CERTIFICATES

**TUHH Fishing For Experience Certificate of** Participation | 2023

**Student Conference of Mechatronics Certificate** of Attendance | 2021

## WORK EXPERIENCE

# **Working Student (Machine Learning Engineer)**

#### toern | Hamburg

Nov 2023 - Nov 2024

- · Data collection, training and deployment of a Faster Regionbased Convolutional Neural Network, specialized in detecting defects on clothing items
- Collecting data by writing a web scraper with Selenium
- · Training & evalution of the model using Pytorch
- · Web deployment of the model using AWS technologies (Lambda, ECR)
- Designing & implementing an UI with React for the front-end
- · Carrying out various AWS & React related tasks

# **Web Developer**

#### WiseSoft | Izmir

Jan 2022 - Apr 2022

- Front & back-end software development for e-commerce website building platform,
- Providing more functionality to the UI and to it's design, mainly using vanilla HTML&CSS, Javascript and PHP.

## **Intern (Mechanical Engineer)**

#### Janoschka | Izmir

Apr 2021 - May 2021

- · Learning about the manufacturing processes of printing cylinders
- Learning about the details of how a CNC machine works
- Learning about the problems encountered during manufacturing and how to solve them

# PROJECTS

#### **TUHH Fishing for Experience Programme - toern** | 2023

- · Classifying clothing items based on their condition ( clean, dirty etc.) via machine learning
- Building a convolutional neural network from scratch using TensorFlow & Keras for an image classification task
- Deployment of the model to the web using TensorFlow.js library

#### Project Work - TUHH | 2024

- Mapping music into a physical painting based on the mood of the input music
- Training of a Conditional Generative Adversarial Network (CGAN) model using PyTorch, detecting the mood the of the music using Essentia.js library, and lastly preparing digital paintings for robotic drawing by mapping them into 2D points
- Developing a web application using React for the front end and Flask for the back end

#### Project Work - TUHH | 2024

- Integrating sonars & thrusters to an underwater robot on the software side, with ROS framework
- Writing a simple algorithm for autonomous manipulation of the robot