

EDUCATION AND TRAINING

01/2018 – 09/2021

BACHELOR OF SCIENCE (BS), COMPUTER ENGINEERING – Middle East Technical University - NCC

Graduated as an **Honor Student**

WORK EXPERIENCE

08/2021 – 09/2021 – Ankara, Turkey

COMPUTER VISION INTERN – ISSD BİLİŞİM ELEKTRONİK A.Ş.

- Worked with the Algorithms team on **Vehicle Detection** in **Python**
- Trained **CNN** models for real-time **vehicle detection** in **traffic images** by utilizing **YOLOv5** & **fish-eye** dataset

TECHNICAL SKILLS

Programming Languages, Technologies & Skills

- Proficient in **C, C++, Java**, and **Python**
- Knowledgeable in **Java Spring Boot, JUnit, JavaFX, Android, Git, GitHub, Assembly, SQL**
- Familiar with **JavaScript, NodeJS, Scala, Prolog, MySQL, PostgreSQL, Linux, MIPS ISA, AVR**, and **Haskell**
- **Data Structures & Algorithms**
- **Object Oriented Programming (OOP) & Design Patterns**
- **Database Design and Implementation**
- **Web Services & Rest APIs**
- **Requirements Specifications & Unit Testing**
- **Image Processing & Machine Learning algorithms**

PROJECTS

EyeCon (Eye Tracking Android App - Graduation Project)

- A Research Project resulted in an **Android** Application that is controlled by **Eye Gaze**
- We created a **music player** that makes use of **Spotify web API** and **Spotify SDK** in **Java**
- Pretrained a model with 48,000 images in Tensor Flow (TF) in **Python**
- Performed **calibration** to tune the model for different users and devices
- The **model** used the camera feed for **gaze prediction**
- Replaced pressing buttons by the user's **smile**
- Performed **Unit testing** using **JUnit** and integration testing
- Calculated a **3.4 cm average error** & **1.31 cm best error**

Store Web Service and Desktop Application

- Implemented a web service using **Java Spring Boot**
- Designed a store database and Implemented it using Java Persistence API (**JPA**)
- Created **RestController** to provide an **API** for outside programs using **HTTP** requests & **JSON** data
- Tested the web service using **Postman**
- Implemented a desktop app with a GUI using **JavaFX** to communicate with the web service

Problem Solving Online Judge Database

- Defined the **data requirements** and **transaction requirements**
- Designed the database and created the **ERD** diagrams
- Performed **Mappings & Normalization** (BCNF) to reach a final **Relational Schema**
- Implemented the database using **PostgreSQL**
- Accessed the database using **SQL commands** & **NodeJS**

Sudoku Solver

- Designed and implemented an **AI agent** to solve Sudoku
- Formulated the Constraint Satisfaction Problem **CSP** using classes in **C++**
- Solved the problem using **Backtracking** with **MRV** and **Forward Checking** heuristics
- Added options to add the **Highest Conflict** heuristic