



Haritha Seddik

R&D Engineer, Python Developer

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Overly ambitious engineering enthusiast who's also a little hooked on Caffeine

EDUCATION

BSc in Mechanical Engineering Bilkent University

08/2016 - 09/2020

Cumulative GPA: 3.56

Relevant Courses

- Intro to Computing (Matlab)
- Linear Algebra
- Probability & Statistics
- Intro to Programming (Java)
- Mechatronic Systems
- Intro JavaScript

WORK EXPERIENCE

R&D Engineer & Python Developer RailAcoustic - Enekom Energy

09/2020 - 2020

Ankara, Turkey

Broken Railway Detection Systems

Achievements/Tasks

- Responsible for the main testing process (developing software, managing) for all the product line for the Ankara-Sivas YHT high speed train project.
- Developed communication protocols using Python's **Socket**.
- Developed **SQL** database management classes using Python **Sqlite3**.
- Using **C**, built multiple **Arduino/ RaspberryPi** based testing apparatuses for product shelf testing.
- Following OOP principles, built multiple **Python GUI desktop Apps**, used for field and research testing.
- Developed audio-analysis algorithms using **MATLAB's** Signal Processing, and Wavelet toolboxes.

Undergraduate Research Assistant Bilkent University/ MINI Lab

01/2018 - 09/2019

Achievements/Tasks

- Modeled droplet formation using COMSOL Multiphysics software, used Matlab for statistical analysis.

R&D Intern Artiboyut Technologies

07/2019 - 09/2019

Ankara, Turkey

Achievements/Tasks

- Developed Arduino homing system using stepper motors

Quality Control Intern Olga Ltd.

08/2018 - 09/2018

Ankara, Turkey

Achievements/Tasks

- Prepared QC spreadsheets according to ISO standards

SKILLS

Python

Javascript

React JS

SQL

Matlab

Java

Arduino

C

Linux

LabView

OpenCV

PyQT5

LaTeX

ACADEMIC/PERSONAL PROJECTS

Ecommerce React App Website

- Built an ecommerce store website using React by utilizing tools like **Material-UI**, **React-Hook-Form**, and **Stripe**.
- Handled backend operations using **Commerce.js** API calls.

Manufacturing Services Website

- Built as **React**-based website using React routing, React hooks, DOM manipulations, and CSS styling

Drone Hunter Platform (Object Tracking with Python OpenCV) - Meteksan SAVUNMA

- Project Lead for a team of engineers to develop a hunter-drone platform to neutralize malicious drones, sponsored by **Meteksan SAVUNMA** as part of the BSc graduation project.
- Developed **Object-recognition** and tracking code using Python's **OpenCV** fed by a video stream powered by a **Jetson NANO**. Used feedback from the video-stream to **control servo-motors** for stabilizing the camera's gimbal mechanism.

Modeling Mobility Interactions in Population Biodiversity - MSN514

- Recreated Nature paper that models the effect of mobility on biodiversity based on rock-paper-scissor game model (mathematical Evolutionary Game Theory model).

Gap-Closing Mechatronic Robot (2nd Place)

- Programmed **PIC microcontroller in C**, PWM control of DC motors with feedback from UV sensors.

Smart Weed Exterminator Project - MES Club

- Developed robot's software on RaspberryPi, including controlling the motors using **Arduino**.

ACHIEVMENTS & CERTIFICATES

100% tuition & accommodation scholarship, Bilkent

2nd Rank in cohort ,High Honors Graduate

2nd place in mechatronics competition - ME384

LANGUAGES

English
Native or Bilingual Proficiency

Turkish
Full Professional Proficiency

Arabic
Full Professional Proficiency