

Behiye Erdemir

4020 Linz, Austria – Phone: +43 6764692544

Linkedin: [linkedin.com/in/behieyerdemir/](https://www.linkedin.com/in/behieyerdemir/) - Github: github.com/erdemirbehiey

EXPERIENCE

3D Web Developer – Freelancer 02/2022 - 08/2022 **Toronto, Canada**

- Led the 3D research and development team to allow users to interact with 3D environments while having a video call
- Built an editor that allows users to design and create new 3D environments by using JavaScript and **React Three Fiber**
- Used Firebase **Firestore** and **Realtime Databases** to manage the data of 3D scenes and user activities

Computer Vision Intern – Ayvos 03-06/2022 **Istanbul, Turkey**

- Prepared the dataset for a machine learning model by using the Image Augmentation library and **OpenCV** with **Python** | Tested the designed model with real data and dealt with Overfitting
- Designed and implemented an image classification model by using **Keras/Tensorflow** frameworks

R&D Intern – DVL 03/2019-03/2022 **Istanbul, Turkey**

- Produced, tested, and improved the circuit board of the Wearable EKG device
- Prototyped a **PCB** and programmed ESP32 to get sensor values for the soilless agriculture project
- Instructed Arduino lessons to primary school students

Private Tutor – Freelancer 01/2018-06/2022 **Izmir, Turkey**

- Provided one-on-one lectures on robotics to primary school students

SKILLS

Programming Languages: Python, C, JavaScript, MATLAB, Processing, Max/MSP

Frameworks/Libraries: Tensorflow, Keras, OpenGL, React.js, React Three Fiber

Other Tools: Git, Github, Unity, EAGLE

EDUCATION

UNIVERSITY OF ART AND DESIGN LINZ 09/2021 - Present **Linz, Austria**
MA in Interface Cultures

IZMIR INSTITUTE OF TECHNOLOGY 09/2016 – 06/2021 **Izmir, Turkey**
BSc in Electronics and Communication Engineering

PROJECTS

Exploring My Painful Relationship with Money with Haptic Interaction 03/22 – Present

- Evaluated physical and mental effects caused by money-making methods and carried these effects to a wearable suit with the approach of the Internet of Things
- Built a trading bot by using Binance API and Python as an example of money-making methods
- Programmed ESP32 to map the loose/win situation to the vibration motor on the wearable sensor

Screenshots Invader (<https://www.dwhx.space/dwhx-x-ic/studios>) 05/2022 – Present

- Applied image augmentation methods randomly to screenshots representing my memory in dataspace to provide forget in digital using JavaScript that is being exhibited in Das Weiße Haus Wien Studio.

3D Object Generation with Generative Adversarial Networks 02/2020 – 06/2021

- Designed and implemented a Generative Adversarial Networks model to generate novel and original 3D objects with Python/Keras
- Observed various types of noises to test the success of the model

- Demonstrated the spatial transition between two objects by interpolating their latent space vectors
- Applied post-processing to filter the noise on objects and converted them from point cloud to voxel by **Marching Cube Algorithm**

Remotely Operated Underwater Vehicle for Crack Detection *10/2020 – 08/2021*

- Built a ROV to detect cracks in concrete water tanks
- Implemented a **Convolutional Neural Networks**-based approach to detect the cracks and an Image Processing-based algorithm to obtain the location and shapes of cracks with Python/Keras

Sending Image and Text Using Software Defined Radio *03/2021 – 06/2021*

- Designed a transmitter/receiver to send/receive images and texts by implementing filtering, and adaptive algorithms for automatic gain control, clock recovery, and equalization.

The Performance of OFDM in DVB-T Systems *10/2020 – 01/2021*

- Generated OFDM system and analyse the performance for DVB-T parameters with MATLAB.

DC Water Level Controller *02/2020 – 06/2020*

- Designed a circuit with **Ltspice** to control water level at certain intervals with the capacitive-based sensor

ORGANIZATIONS

HARPIA UAV TEAM *03/2019 – 09/2020*

- Led the Avionic System Design and Image Processing team of the organization
- Built the electronic systems of autonomous drones and planes by using Pixhawk
- Implemented Image Processing algorithms to detect specific areas in different shapes/color