

# **Eszes Bálint**

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eszesbalint



@eszesbalint



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### **Skills**

- Strong foundation in mathematics and machine learning
- Proficient in Python and its packages, including:
  - Tensorflow/Keras
  - Numpy
  - scikit-image
  - o PIL
  - Flask
- Skilled in virtual environment management and data set preprocessing
- Extensive experience in web-based
   3D graphics with Three.js
- Proven ability to independently carry out assigned tasks

## Languages

- Proficient in both written and spoken
   English
- Native-level proficiency in Hungarian

I am a recent **Computer Science** graduate with a major in **mathematical modeling**, who loves to explore new ideas and work on exciting projects. I possess a strong foundation in mathematics that I can apply to a wide range of technical fields, including **machine learning** and **computer graphics**. I am a **creative** problem solver, a **quick learner**, and a **passionate** team player.

### **Education**

- Bachelor's degree in Computer Science with a major in mathematical modeling from ELTE IK, graduated in 2021
- Completed a deep learning seminar at ELTE TTK in 2018

## Personal projects

#### **Block Display Studio**

My latest project is a comprehensive **3D editor for Minecraft**, written in **JavaScript** and **Three.js**.

It enables users to bring custom 3D models into their Minecraft worlds without the use of mods or resource packs. With this tool, users have complete creative control over an otherwise rigid, blocky world. It has a user friendly UI, and all the necessary 3D modelling and editing tools to create anything they could envision.

My app was well-received by the Minecraft community, attracting **thousands of monthly users** and highly creative individuals worldwide.

<u>Video showcasing some creations made with my tool - by Daft Craft</u>
<u>Link to GitHub repository</u>

#### Footprint analyser

Developed a **MobileNet** model that can accurately identify the footprints of 30 different animal species from a photo. The model was trained on a **synthetic dataset** generated by a **Blender script**, achieving an impressive accuracy of 92%.

#### Thesis project

Developed a model that uses recent advances in **machine learning** to generate maps for tilemap-based computer games. The project includes a web-based interface that utilizes the **Eel package** and **Three.js**, making it easy to use and accessible to a broad audience.

#### **Data Visualization Workshop Assignment**

Embedded 5 million Wikipedia articles into a spherical latent space using an **autoencoder** and visualized them on a **Three.js**-based web interface.

Link to live demo



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## **Art projects**

As **my grandfather was a gifted painter**, it gave me the inspiration to live my artistic self, and produce something that stands out, something **uniquely mine**.

Grandfather's typography and painting works had made such a huge impact on me, that I started my own experimentation with different mediums like <u>digital painting and 3D modeling</u>, and eventually led me to discover the retro charm of **ASCII art**, in which I can combine my passion for technology and my love for art.

As a testament to my dedication, I had the honor of showcasing some of my digital paintings at an exhibition, which opened doors to numerous opportunities for me to organize **my own exhibitions**.

Through my art, I strive to blur boundaries and convey a message of acceptance, which I believe is crucially important in both art and life.