

CONTACT

MOBILE

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ADDRESS

1089, Budapest, Hungary

LANGUAGES

- ENGLISH – professional
- ITALIAN – advanced
- HUNGARIAN – native
- SPANISH - beginner

SKILLS

- **Problem Solving;**
- **Critical thinking;**
- **Accurate and precise** working, both in team and alone;
- **Time Management;**
- **Reliability;**
- Diligent work time;
- MATLAB, C#, **Unity3D**, Python, Database, Arduino, Basic PLC knowledge, HTML documentations, **Scripting**, **Data Science**;
- Open personality to acquire new competencies;
- Work with cell culture;
- In vivo optogenetic manipulation in mice model;

ESZTER BÁTHORY

BIOCHEMICAL ENGINEER

BIOMEDICAL ENGINEER

ABOUT ME

I am a **reliable, critical-thinking problem solver** and I am looking for **challenge** and self-development opportunities in the technical field.

PROFESSIONAL EXPERIENCES

Clario 06 2024 - current

- **Solution Design Analyst**

Femtonics Ltd. / BrainVisionCenter 02 2020 – 05 2024

- **Bioengineer - device, and software development**

July 2023 – Current

Device **and software development**.

Create and constantly develop a brand new **Unity3D** project for neuroscientific research purposes with User-friendly solutions for the software package, **version control** with **GitHub**, and use of **OpenCV**. **HTML documentation** extended with detailed **tutorial** pages. **Experiment and protocol design**.

3D virtual environment development as an in vivo animal experimental tool for behavioral-related cortical signal processing questions. **Tests and calibrations** that relate to the developed devices for the experiments. Keep connections with foreign collaborators. Data analysis in **MATLAB**.

Scientific discussions. Active use of English. **Manuscript** for publication. Design marketing material.

Device specialist at **international conferences** and lectures about it for others.

Robotic system development, automation (**database** construct design, queries and analysis in **Python**, basic robotics with PLC TwinCAT, **GUI** design for researchers).

- **Research Scientist** (same company)

February 2020 - June 2023 (with half year break after graduation because of lack of open position)

MATLAB scripting and editing animal **behavioral protocols**. Use of Python, Arduino, and C# for different projects.

Biologist tasks: Performing in vivo **viral transfections** with micropipette injections, mouse craniotomy **surgeries**, **optogenetic manipulations**, active use of **multiphoton microscopy** (acousto-optic 3D), **neurobiological research**, and data **analysis**, and animal **training**.

Poster presentations at international conferences. Discussion of research projects, tasks, and plans.

Neuroscience conferences (OPTOGEN 2022 poster **presenter**, FENS 2022 poster co-author, IBRO 2023 Granada, Spain **device and application specialist**).

- **Gottsegen National Cardiovascular Center, Hospital**

Instrument Engineer

October 2021 – December 2021

Project engineering, logistics, service, and documentation, ordering equipment, writing contracts, and keeping contact with medical device companies.

- **OFESZ Molecular Diagnostic Laboratory**

Laboratory Assistant (self-employment)

June 2021 – September 2021

In vitro human **diagnostics**, **PCR** runs, and sample handling.

EARLY CAREER & VOLUNTEERING

- **Volunteer researcher** at the **Hungarian Academy of Sciences, Research Centre for Natural Sciences, Institute of Organic Chemistry, and Chemical Biology group.**

September 2017 – December 2018

Responsibilities: **Preparative work** in the molecular biology field, **spectrophotometry**, and data analysis. DNA preparation synthesis and FRET pair dye identification.

- **Development project manager intern** at **Sanofi**, Chinoin Zrt. June 2019 - September 2019

- Project in biocompatible materials, **cochlear implantation**, and hearing aid devices (visiting implant operations, intraoperative measurements, tuning of the signal processor for patients – **intern project**, half-year duration in a local hospital).

- **Volunteering junior researcher** during my first year at Femtonics Ltd. as a scientific researcher.

- Participation in **Scientific Student Conference** – Role of Vasoactive Intestinal Polypeptide Expressing Interneurons in Cortical Signal Processing (II. price).

EDUCATION

Budapest University of Technology and Economics

B.Sc. Biochemical engineer, healthcare specialization Faculty of Chemical Technology and Biotechnology

September 2015 – January 2019

M.Sc. Biomedical engineer, healthcare specialization (with honors) Faculty of Electrical Engineering and Informatics

September 2019 – June 2021



Unity Junior
Programmer
Unity Technologies



Unity Essentials
Pathway
Unity Technologies

