

# ESZTER BÁTHORY

## CONTACTS

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## LANGUAGES




ENGLISH –  
Professional  
ITALIAN – Advanced  
HUNGARIAN – native  
SPANISH – Beginner



## SKILLS

Problem-solving,  
Critical thinking,  
Accuracy and Precision, both  
in a teamwork and  
independent work,  
Time Management,  
Reliability,  
Diligent Working Time,  
Version Control (SVN, git)  
MATLAB,  
C#,  
Unity3D,  
Python,  
ML,  
Time Series Database,  
Arduino,  
Data Science,

## ABOUT ME

Biomedical Engineering   

Neuroscience, Brain Research   

Programming, Scripting  

Biochemistry    

[Personal Website](#) | [Home projects](#)



## EDUCATION

**Budapest University of Technology and Economics**

**BIOCHEMICAL ENGINEER, B.Sc.** Healthcare specialisation  
Faculty of Chemical Technology and Biotechnology  
*Sep 2015 – Jan 2019*

**BIOMEDICAL ENGINEER, M.Sc.** with honours  
Faculty of Electrical Engineering and Informatics  
*Sep 2019 – Jun 2021*

Programming Certificates: [Unity3D](#), [Python](#), [Machine-Learning](#)

LinkedIn certificates: TensorFlow - NNs, NLP, Images, Deep Learning, Arduino,  
Business Analysis

## PROFESSIONAL EXPERIENCES

- **Clario Clinical**, *Jun 2024 – Sep 2024*  
**Solution Design Analyst**, eCOA - remote

- **Femtonics Ltd. / BrainVisionCenter**, *Feb 2020 – May 2024*  
**Bioengineer - device, and software development**, *Jul 2023 – May 2024*

- Device and software development (Unity3D) on designing animal virtual environments for neuroscience research. Oversaw the device functionality, maintenance, and technical testing. Played a crucial role in optimising, creating protocols, and teaching the use of the devices.

- Enhanced device functionality through testing, and communication with teammates from different backgrounds.

- Real-time online feedback was developed for the GUI for more effective experiments and an augmented user experience.

- Managed software-hardware integration for in vivo animal experiment tasks. Developed internal documentation (Sphinx - HTML) and provided training material to international clients.

- Advertisement and demonstration.

Basic PLC,  
HTML documentation,  
Microscopy,  
Use of laboratory  
equipments,  
Mentoring,  
Tutorial design,  
Microsoft,  
Thinking ahead,  
Photo post-processing,  
Sport Animator

## Assessment Centers

- Linde, Pullach, Germany, 2024
- Telekom Deutsche, Hungary, 2025

-Insight into basic PLC programming, robotics, database queries, and GUI design.

### **Research Scientist** in neuroscience – *Initial role*

- Co-author of a [Nature Methods paper](#).
- Device specialist at international and national conferences.
- Presented research on poster sessions at conferences (OPTOGEN, IBRO, FENS), **contributing to ongoing neuroscience investigations**.
- Perform experiments and protocol designs for cortical signal processing studies, extended with data analysis.
- Perform in vivo optogenetic manipulations, viral transfection with micropipette injections, mouse craniotomy surgeries, and active use of multi-photon microscopy (acoustic-optic 3D) in neurobiological research, and data analysis development.

- **Gottsegen National Cardiovascular Center**, Hospital, *Oct – Dec 2021*

#### **Instrument Engineer**

- Project management, handle logistics, serve coordination, and technical documentation for medical equipment projects.
- Liaising with medical device companies and distributors for acquisitions and contracts.

- **OFESZ Molecular Diagnostic Laboratory**, *Jun – Sep 2021*

#### **Laboratory Assistant** (self-employment)

- Conducted PCR diagnostics and handled samples for in-vitro diagnostics.
- Operated blood analysers and chemical automation systems.

## EARLY CAREER & VOLUNTEERING

- **Hungarian Academy of Sciences, Research Center for Natural Sciences, Institute of Organic Chemistry, and Chemical Biology group,**  
**Volunteer Researcher**, *Sep 2017 – Dec 2018*

-Preparative work with DNA oligomers, and performed measurements with spectrophotometry, capillary electrophoresis. Data analysis and visualisation.

- **Sanofi, Chinoin Zrt., Development project manager intern**, *Jun – Sep 2019*

- **Department of Otorhinolaryngology, Head and Neck Surgery, Internship**

-Project with cochlear implantation, and hearing aid devices.  
-Observe implant operations, intraoperative measurements, facilitate the tuning of the signal processor for patients.

- **Femtonics Ltd., Volunteer Junior Researcher** during the first year.

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