ESZTER BÁTHORY

CONTACTS

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LinkedIn

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.

-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).