



CONTACTS

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LANGUAGES

ENGLISH – professional

ITALIAN – advanced

HUNGARIAN – native

SPANISH - beginner

SKILLS

Problem Solving,

Critical thinking,

Accuracy and precision, both
in team and alone,

Time Management,

Reliability,

Diligent work time,

Version control (SVN, git),

MATLAB,

C#,

Unity3D,

Python,

Timeseries Database,

Arduino,

Data Science,

ESZTER BÁTHORY

ABOUT ME

Experienced and reliable professional with strong interests in medical engineering, neuroscience and software development. Known for critical thinking, problem-solving, and a proactive approach to seeking new challenges and opportunities in technical fields.

EDUCATION

Budapest University of Technology and Economics

BIOCHEMICAL ENGINEER, B.Sc. Healthcare specialization

Faculty of Chemical Technology and Biotechnology

Sep 2015 – Jan 2019

BIOMEDICAL ENGINEER, M.Sc. with honors

Faculty of Electrical Engineering and Informatics

Sep 2019 – Jun 2021

PROFESSIONAL EXPERIENCES

• **Clario Clinical**, *Jun 2024 – Sep 2024*

Solution Design Analyst, eCOA - remote

- Designing charters for clinical trials in multicultural environment.

- Collaborating with clients and team members to ensure protocol compliance.

• **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 neuroscientific researches. Oversaw the device functionality, maintenance, and technical testing. Played a crucial role in optimizing, 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 developed to the GUI for more effective experiments and 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 to basic PLC programming, robotics, database queries, and GUI design.

Basic PLC knowledge,
 HTML documentations,
 Scripting,
 In vivo optogenetic
 manipulation in mice,
 Viral transfection,
 Multi-photon microscope
 user,
 Driving license,
 Efficient in multicultural
 environment,
 Mentoring



Research Scientist in neuroscience – *Initial role*

- Co-authored a paper under review by Nature.
[Competition of cortical clusters during on-demand visual learning in immersive virtual reality | Research Square](#)
- Device specialist at international and national conferences.
- Presented research on poster sessions at conferences (OPTOGEN, IBRO, FENS), contributing to ongoing neuroscientific 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 multiphoton microscopy (acousto-optic 3D) in neurobiological research, and data analysis development.

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

Instrument Engineer

- Handled logistics, serve coordination, and technical documentation for medical equipment projects.
- Liaised 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 human diagnostics.
- Operated blood analyzers 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 visualization.

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

- **Department of Otorhinolaryngology, Head and Neck Surgery., Intern project**

- Project in biocompatible materials, 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. price).