

MELINDA RÁCZ



PERSONAL INFORMATION

Date and place of birth: 7 May 1991, Kerepestarcsa (Hungary)

Preferred title and pronoun: Mx, they (gender neutral)

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Publons: <https://publons.com/researcher/3768732>

Scopus: <http://www.scopus.com/authid/detail.url?authorId=57214259104>

ResearchGate: <http://www.researchgate.net/profile/Melinda-Racz>

Google Scholar: <https://scholar.google.com/citations?pagesize=100&user=vhFDQrAAAAAJ>

MTMT: <https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=10077509>

EDUCATION

Tertiary education

PhD degree in neuroscience, Szentágotthai János Doctoral School of Neurosciences, Semmelweis University (2020–)

Program: Functional Neurosciences

Title of research project: Research and Design of Electrophysiological Data Acquisition Tools for Brain-Computer Interfaces. Supervisor: Dr Gergely Márton

MSc degree in electrical engineering, Faculty of Electrical Engineering and Informatics, Budapest University of Technology and Economics (2017–2020)

Diploma: excellent with highest honours (4.72)

Thesis title: Development of Brain-Computer Interfaces Using Deep Learning Methods

Supervisors: Dr Gergely Márton, Dr István Harmati

BSc degree in electrical engineering, Faculty of Electrical Engineering and Informatics, Budapest University of Technology and Economics (2011–2016)

Diploma: good (4.13)

Thesis title: Development of an Intelligent Process Model for Laboratory Practice

Supervisor: Dr György Pilászy

Secondary education: Waldorf Primary and Secondary School and Art Institution, Gödöllő (1998–2011)

Auxiliary trainings/courses

Good Clinical Practice of Clinical Trials (2021)

Experimental animals—animal experiments “B” level course (2020)

PROFESSIONAL EXPERIENCE

Scientific administrator, Research Centre for Natural Sciences (2020–)

R&D fellow, Pázmány Péter Catholic University (2018–2020)

Software/hardware developer, D.E.Á.K. Irányítástechnikai Kft. (2016–2017)

TEACHING EXPERIENCE

Teaching Assistant (Control Engineering), BUTE-FEEI (2016)

PUBLICATIONS

János Rokai, Melinda Rácz, Richárd Fiáth, István Ulbert, Gergely Márton. **ELVISort: encoding latent variables for instant sorting, an artificial intelligence-based end-to-end solution**. 2021. Journal of Neural Engineering, 18 (2021) 046033. DOI: <https://doi.org/10.1088/1741-2552/abf521>

Viola Ildikó Matusz, Melinda Rácz, János Rokai, Nikomidisz Eftimiu Jorgosz, Tímea Molnár, Dorina Maráki, István Ulbert, Gergely Márton. **Head-mounted, wireless eyetracker for real-time gaze prediction utilizing machine-learning**. 2020. 2020 IEEE International Conference on Human-Machine Systems (ICHMS), pp. 1-4. <https://doi.org/10.1109/ICHMS49158.2020.9209326>

Melinda Rácz, Csaba Liber, Erik Németh, Richárd Fiáth, János Rokai, István Harmati, István Ulbert, Gergely Márton. **Spike Detection and Sorting with Deep Learning**. 2020. Journal of Neural Engineering, 17 (2020) 016038. DOI: <https://doi.org/10.1088/1741-2552/ab4896>

LANGUAGE SKILLS

Hungarian: native speaker

English: working proficiency, B2 complex language exam (2011)

MISCELLANEOUS SKILLS

Programming in C, C++, MATLAB, Python

Document editing in LaTeX or using Microsoft Word

Other software skills: Excel, PowerPoint, Gimp, Inkscape

Digital design using DipTrace or Protel/Altium

Manual soldering