

DR. AGOSTON TOROK

Lead Data Scientist

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EXPERIENCE

Lead data scientist

AGT Group R&D GmbH

📅 Jan 2018 – ongoing

📍 Darmstadt, DE

- Development of real-time analytics based on multiple data sources from conception to product with accountable KPIs.
- Mentoring and motivating people; serving as scrum master or product owner, taking part in hiring talents.
- Explaining analytics on business and sales meetings on four continents.

Data scientist and R&D Lead

Synetiq Ltd.

📅 Aug 2015 – Jan 2018

📍 Budapest, HU

- Took part in the development of a large scale analysis pipeline that handles 200 new testers' physiological data every month for ad optimization.
- Functioned as the R&D Lead and was responsible for the growth of the company "know-how".

Research fellow

Institute for Computer Science and Control, Hungarian Academy of Sciences

📅 Jan 2017 – Dec 2017

📍 Budapest, HU

- Developed a research program to study for the quantitative study of UX aspects of autonomous cars (GLMM, Clustering) for safer interfaces.
- Taught Multivariate statistics, Research methodology, and supervised thesiswork at ELTE.

Research associate

Brain Imaging Centre, RCNS, Hungarian Academy of Sciences

📅 Sep 2013 – Dec 2016

📍 Budapest, HU

- Won 4 research grants, 5 travel grants and took part in several research projects in Europe and overseas.

Research assistant

Institute of Psychology, Hungarian Academy of Sciences

📅 Apr 2009 – Sep 2011

📍 Budapest, HU

- Designed, programmed, and analyzed experiments in Matlab, Praat, Presentation.
- Took part in the development of a navigational aid for visually impaired.

LIFE PHILOSOPHY

"Everything is theoretically impossible, until it is done."

MOST PROUD OF



Leading a team

I've been leading teams of up to 10 people with a wide variety of expertise



Keynote speaker

I was invited to give a talk at the Annual Meeting of the John von Neumann Society



Interdisciplinary link

I successfully worked together with businessmen, engineers, geographers, linguists, and mathematicians

STRENGTHS

Customer-focused

System view

Creative

Clarity

Agile dev

Bayesian

Statistics

Deep learning

Python

R

Matlab

SQL

Docker

CI/CD

LANGUAGES

Hungarian

English

Italian

German



EDUCATION

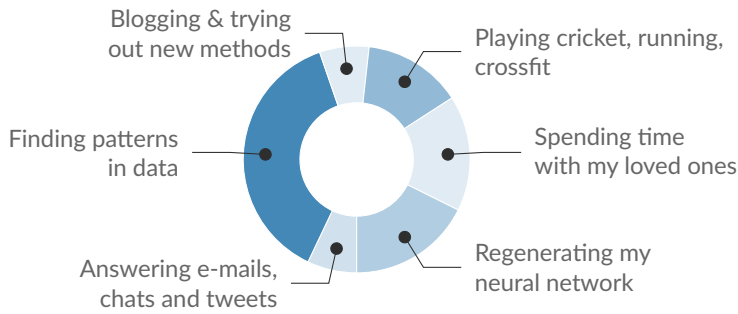
PhD in Cognitive Psychology

Eötvös Loránd University

📅 Sep 2011 – Mar 2017

Thesis: Spatial perception and cognition, insights from experiments in virtual reality

A DAY OF MY LIFE



SELECTED PROJECTS



Productive Data Science Teams Blog

I'm writing stories about agile data science teamwork/product development on Medium/Towards Data Science



Slides of Loci

I designed my on 2D/3D presentation toolkit in Unity3D using C#



Ad Targeting

With two friends of mine, developed an AI solution to fine-tune ad targeting based on facial similarity



Clean git practices hook

I wrote a fun tool in bash to check commit messages and give feedback in Linus Torvalds style

AWARDS & SCHOLARSHIPS

- 2017 - Best Session Award at IEEE CIC 2017
- 2017 - 1st place at the Telekom Leading Data Hackathon
- 2016 - Qusp prize at the IEEE Brain & Vision Hackathon
- 2016 - 28th place on the Senior Data Science competition
- 2013 - Junior researcher fellowship, Hungarian Academy of Sciences
- 2013 - Campus Hungary Scholarship
- 2011 - Scholarship by the Student Union of Benedictine Schools
- 2010 - Scholarship granted by the Republic

SELECTED PUBLICATIONS

Total citations: 108; h-index: 7

- Torok, Agoston et al. (2019). "A novel virtual plus-maze for studying electrophysiological correlates of spatial reorientation". In: *Neuroscience letters*.
- Nadasdy, Zoltan et al. (2017). "Context-dependent spatially periodic activity in the human entorhinal cortex". In: *Proceedings of the National Academy of Sciences*. DOI: 10.1073/pnas.1701352114.
- Török, Ágoston, Elisa Raffaella Ferrè, et al. (2017). "Up, Down, Near, Far: An Online Vestibular Contribution to Distance Judgement". In: *PLOS ONE* 1. DOI: 10.1371/journal.pone.0169990.
- Török, Ágoston, Andrea Kóbor, et al. (2017). "Temporal dynamics of object location processing in allocentric reference frame". In: *Psychophysiology*.
- Honbolygó, Ferenc et al. (2016). "ERP correlates of prosody and syntax interaction in case of embedded sentences". In: *Journal of Neurolinguistics*.
- Török, Ágoston, T Peter Nguyen, et al. (2014). "Reference frames in virtual spatial navigation are viewpoint dependent". In: *Frontiers in human neuroscience*.

RESEARCH

The significance of spatial reference frames in cognitive visualization

[ELTE Multidisciplinary Grant](#)

📅 Jul '16 - Jul '19

📍 Budapest, HU

We found that people use maps more comfortably without additional instructions (experiment using eyetracking and virtual reality)

Twisted Gravity: Assessing visuo-vestibular cues integration for the perception of gravity

[EPS, UK](#)

📅 Jan '17 - Jan '19

📍 RHUL, London, UK

We studied how our eyes are fooled by our memories of gravity (using Oculus and galvanic vestibular stimulation)

Virtual teleportation

[KTIA-AIK-12-1-2013-0037](#)

📅 Jun '13 - May '15

📍 Budapest, HU

We showed that virtual teleportation is an effective and quasi-natural way of locomotion in VR

The gender dimension of navigation

[EU Fp7 - 262044](#)

📅 Sep '14 - Jan '15

📍 Technion, Haifa, Israel

We built a conceptual model in OPM for the neural background of gender differences in navigation

Visuovestibular distance illusions

[EU Fp7 - 262044](#)

📅 Sep '14 - Dec '14

📍 UCL, London, UK

We found that the vertical distance illusion tells about how our perception is affected by our physical limits.

Audiovisual in-car warning systems

[EU Fp7 - 262044](#)

📅 May '14 - Sept '14

📍 Aix-Marseille Univ., FR

We used a perceptual illusion to improve the effectiveness of in-car warning systems (using CAVE system and spatial sounds).