ÁDÁM RADVÁNYI, PHD
‘DATA SCHOLAR’

CONTACT

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PROFILE

Evolutionary biologist by origin, astrobiologist and science communicator by heart. Data scientist by trade with a strong track record in applied statistics, machine learning, and science-driven storytelling. Passionate about connecting diverse datasets and navigating the deep lakes of information through analysis, visualization, and insight—often blending scientific rigor with creative intuition.

WORK EXPERIENCE

MOHOLY-NAGY UNIVERSITY OF ART & DESIGN, DATA SCIENTIST >>> DATA LEAD
2022 – PRESENT

Reformed and consolidated institutional data warehouse infrastructure across internal and external sources. Built data applications, including reporting dashboards, KPI monitoring, an NLP-powered university activity search, collaboration network map and an internal administrative LLM application. Provided modeling, visualization, and communication services to partner research groups and client institutes. Currently acting as a Data Lead managing 2 data scientists.

EÖTVÖS LORÁND UNIVERSITY, PHD RESEARCHER & ASSISTANT LECTURER
2017 – 2022

Among my PhD projects, I researched proteome evolution, codon usage, and environmental adaptation of microbial proteins, and developed a pilot case for a spatial community model based on a cellular automaton. As a lecturer I taught biostatistics and programming (R, Python) to undergraduates. I was also active in science outreach and participated in several science communication initiatives as a speaker and writer.

EDUCATION

EÖTVÖS LORÁND UNIVERSITY,
DOCTORAL SCHOOL OF BIOLOGY
2017 – 2024

PhD in Theoretical- and Evolutionary Biology, thesis: "Elucidating the environmental preference and possible origins of the standard genetic code"

EÖTVÖS LORÁND UNIVERSITY,
FACULTY OF SCIENCE
2012 – 2017

Bachelor and Master of Science in Biology, primary focus on bioinformatics, applied statistics, computational modeling and evolutionary biology

LANGUAGES

Hungarian (native)
English (C1)
Swedish (B1)
Norwegian (A2)

HIGHLIGHTED PROJECTS

PROJECT CONSTELLATION: AN INTERNAL ANALYSIS [LINK]
2025

Directed a privacy-first analysis of MOME's organizational structure and interaction networks. Explored email metadata, HR trends, community dynamics, and external partnerships to inform institutional strategy and organization.

XX TRIANGULI: THE MOST SPOTTED STAR IN THE SKY [LINK, VIDEO, SHORT]
2024

Collaborated with astronomers to communicate findings from a high-impact study on stellar activity in the XX Trianguli system. Contributed to modeling, 3D data visualization and animation assets and designed public-facing outreach strategies to make the research accessible.

TAIXU: CORPUS ANALYSIS [LINK]
2024

Partnered with a sinologist to explore Chinese philosophical discourse through NLP. Led the development of a text mining pipeline to analyze linguistic patterns across a curated corpus of Buddhist philosophical writings.

RECONNECT CHINA: CO-PUBLICATION AND CO-PATENTING ANALYSIS
2023

Contributed to a Horizon Europe project in collaboration with the Centre for Social Innovation. Conducted large-scale bibliometric and network analysis to map scientific co-authorship and patenting trends between China and the EU.

PUBLICATIONS

Kővári, Zs., Strassmeier, K.G., Kriskovics, L., *Radványi, Á.*, et al.
A star under multiple influences: Magnetic activity in V815 Her, a compact 2+2 hierarchical system
Astronomy & Astrophysics, 684: A94, 26p (2024)

Kun, Á., Hubai, A.G., Král, A., Mokos, J., Mikulecz, B.Á., Radványi, Á.
Do pathogens always evolve to be less virulent? The virulence–transmission trade-off in light of the COVID-19 pandemic
Biologia Futura, 74: 69–80 (2023)

Radványi, Á., Kun, Á.
The Mutational Robustness of the Genetic Code and Codon Usage in Environmental Context: A Non-Extremophilic Preference?
Life, 11(8): 773 (2021)

Radványi, Á., Kun, Á.
Phylogenetic analysis of mutational robustness based on codon usage supports that the standard genetic code does not prefer extreme environments
Scientific Reports, 11: 10963 (2021)

Preiner, M., Asche, S., Becker, S., *Radványi, Á.*, et al.
The Future of Origin of Life Research: Bridging Decades-Old Divisions
Life, 10(3): 20, 23p (2020)

Radványi, Á., Kun, Á.
The evolution of the genetic code: Impasses and challenges
BioSystems, 164: 217–225 (2018)

SKILLS & EXPERTISE

Classical multivariate statistics
Applied machine learning
Natural language processing
Large Language models
Text embeddings
Network analysis
Python data-science ecosystem
Data engineering
Database maintenance
Microsoft 0365 & Azure
Docker
ETL pipelines (Prefect)
Backend development (FastAPI)
Frontend development (React)
Version control (Git)
Scientific writing
Terrific pitch-talking
Hilarious humor and puns

HOBBIES

Weight training
Science communication
Hard sci-fi
Linguistics
Astrophotography
Dungeons & Dragons
Spaceships & Dinosaurs
Learning & Machine Learning