Kristóf Váradi
Computer Engineering
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github.com/leakedweights

Education

Budapest University of Technology and Economics 2025 - 2027
Computer Engineering, M.Sc.

- Primary specialization: Data Science and Artificial Intelligence
- Secondary specialization: Theoretical Computer Science

Budapest University of Technology and Economics 2021 - 2025
Computer Engineering, B.Sc.

- Specialization: Systems Engineering
- Thesis: Mechanistic Interpretability for Molecular Language Models in Drug Development
- GPA: 5/5 (last 3 semesters), 4.24/5 (cumulative)

Experience

E-Group ICT Software 2024 - present
Research Engineer Budapest

- Parameter-efficient multimodal language models.
- Causal discovery and reasoning for natural language generation.
- Federated transformer training.

Budapest University of Technology and Economics 2024 - present
Student Researcher Budapest

- Machine Learning for Drug Discovery involving Mechanistic Interpretability for steering and explaining molecular language models.

HUN-REN Wigner Research Centre for Physics 2024
Research Assistant Budapest

- Opreations Research and Quantum Computing projects at the Quantum Information and Complex Systems Research Group.
- Analysis of optimization algorithms for solving graph problems on quantum annealers.

Evosoft (subsidiary of Siemens) 2022 - 2023
Full-Stack Developer (internship) Budapest

- Development of cloud infrastructure with AWS and Terraform.
- Development of REST APIs and single-page applications.

Research

Kristóf Váradi, Márk Marosi. Interpretability of Molecular Language Models for Drug Development. In *Annual Scientific Student's Association Conference*. Department of Electrical Engineering and Informatics, Budapest University of Technology and Economics, November 2024
First place - Therapeutics Section

Mátyás Koniorczyk, Kristóf Váradi, Sandor Szabo. Graph Cliques and Quantum Annealing. In *VOCAL 2024: The 10th VOCAL Optimization Conference: Advanced Algorithms*. Corvinus University of Budapest, June 2024

Kristóf Váradi. Clique Search on Erdős-Rényi Graphs – Methods for D-Wave Quantum Annealers. In *Pécs Workshop on Quantum Information*. Pécs Regional Committee, Hungarian Academy of Sciences; HUN-REN Wigner Research Centre for Physics, May 2024

Teaching

Budapest University of Technology and Economics — 2023 - present
Teaching Assistant — Budapest

- Databases (BMEVITMAB04), ’23 autumn.
- Artificial Intelligence (BMEVIMIAC16), ’24 autumn.
- Basics of Programming (BMEVIEEBA01), ’24 autumn.
- C11 and C++11 Programming (BMEVIEEAV01), ’24 autumn.

Skills, Preferred Technologies

Tools: JAX
Programming languages: Python, Rust, C++
Languages: English (professional), Hungarian (native), German (elementary)