Kristóf Váradi
Computer Engineering
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github.com/leakedweights

Education

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

- Specialization: Systems Engineering
- Thesis topic: Language Models for Predicting Clinical Trial Outcomes
- Notable courses: Information Theory, Probability, Artificial Intelligence
- GPA: 5/5 (prev. semester) 4.12/5 (cumulative)

Experience

Artificial Intelligence National Laboratory 2024 - present
Student Researcher Budapest

- Contribution to research projects in Machine Learning for Drug Discovery involving Mechanistic Interpretability for steering molecular language models.

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

- Contribution to Opreations Research and Quantum Computing research projects at the Quantum Information and Complex Systems Research Group.
- Theoretical 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.

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.

Software Projects

Isocline 2024
Text-guided consistency model for digital terrain synthesis: `leakedweights/isocline`.

- Tools & technologies: JAX, Flax, HF Transformers
- Implementation of improved consistency training for terrain heightmaps.
- Dataset curation and augmentation with terrain captions.
- Text-guidance with CLIP embeddings.

Mincy 2024
Tools for training Consistency Models in JAX, source: `leakedweights/mincy`

- Tools & technologies: JAX, Flax
- Implementation of *Improved Techniques for Training Consistency Models*.
- Classifier and classifier-free guidance

Workshops, Presentations

1. 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

2. 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

Skills and Technologies

Cloud/Databases: AWS, SQL, Terraform, Docker
Preferred programming languages: Python, TypeScript, C++
Languages: English (professional), Hungarian (native), German (elementary)