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
- Coursework: Language Models for Predicting Clinical Trial Outcomes
- Notable courses: Information Theory, Probability, Artificial Intelligence
- GPA: 5/5 (prev. semester) 3.84/5 (cumulative)

Experience

HUN-REN Wigner Research Centre for Physics 2024 - present
Research Assistant, Quantum Information and Complex Systems Research Group Budapest

- Contribution to Opreations Research and Quantum Computing projects.

Budapest University of Technology and Economics 2023 - present
Teaching Assistant, Databases (BMEVITMAB04) Budapest

- Teaching laboratory classes for second-year undergraduate students.
- Relational Database Design, SQL and Query Optimization within Oracle Database.

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.

Workshops, Conferences

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

Software Projects

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

- Tools & technologies: JAX, Flax
- Implementation of *Improved Techniques for Training Consistency Models*.
- Implementation of *Multistep Consistency Models* (work in progress).
- Implementation of *Latent Consistency Models* (work in progress).
- Classifier-free guidance, inpainting, etc. (work in progress).

Thorium 2023
An API to create AI chat applications with semantic search, source: `leakedweights/thorium`

- Tools & technologies: Python, AWS, FastAPI, Terraform, Langchain
- Retrieval-Augmented chat with ChatGPT using the OpenAI API
- Embedding creation and storage with the OpenAI API, DynamoDB and Pinecone
- Automated deployment to AWS Fargate using GitHub Actions and Terraform

Skills and Technologies

Programming Languages: Python, TypeScript
Cloud/Databases: AWS, SQL, Terraform, Docker
Languages: English (C1), Hungarian (Native), German (Elementary)