Freiburg im Breisgau   # Attila Edmund Mályusz   atimaly@gmail.com

Employment

Research Assistant   **University of Freiburg**   **September 2023 – Present**
- Research Topic: Distributed Algorithms
- Courses Taught: Algorithm Theory, Distributed Systems

Research Assistant   **Hungarian Academy of Sciences**   **September 2021 – February 2023**
- Developed and enhanced algorithms to solve polynomially tractable cases in the popular roommates problem, resulting in a 30% increase in solution efficiency for complex scenarios during research evaluation sessions.

Education

Germany   **University of Freiburg**   **September 2023 – Present**
- PhD in Distributed Algorithms

Hungary   **Eötvös Loránd University**   **Fall 2018 – July 2023**
- M.S. in Applied Mathematics, Specialization: Operations Research, July 2023. Graduated with honors
- B.S. in Mathematics, July 2021
- Graduate Coursework: Approximation Algorithms, Continuous Optimization, Combinatorial Algorithms, Discrete Optimization, Data Mining, Mathematical Foundations of Machine Learning, Integer Programming
- Undergraduate Coursework: Analysis I-IV, C++ Programming, Symbolic Mathematical Software Packages, Deep Learning, Numerical Analysis, Probability Theory, Machine Learning, Statistics

Technical Experience

Projects
- **Open Source Contribution** (2024). Contributed to the open-source project rustsat. Allowed parsing of output from externally run SAT solvers. View contribution.
- **Heart Disease Prediction Using Machine Learning** (2022). Developed a model to predict heart disease using key variables from patient data, achieving 95% accuracy. Utilized Python, NumPy, Pandas, and Scikit-learn for data processing, feature selection, and model training. The project used the Heart Failure Prediction Dataset from Kaggle.
- **Publication:** Polynomially Tractable Cases in the Popular Roommates Problem. Jul 21, 2021.

Competitions and Awards

- **Project Euler Problem 905:** 79th place
- **Project Euler Problem 897:** 77th place
- **AtCoder Heuristic Contest 36:** 342nd place
- **AtCoder Heuristic Contest 15:** 306th place
- **Jane Street Budapest Estimathon:** Member of one of the winning teams

Languages and Technologies

- **Programming Languages:** C++, Python, Rust
- **Machine Learning and Data Analysis:** Scikit-learn, PyTorch, Pandas, NumPy, Matplotlib, Seaborn
- **Development Tools:** Visual Studio, Git, GitHub, Vim, Linux, Microsoft Excel

Languages

- English (C2), German (B1), Hungarian (Native)