BENEDEK HARSÁNYI

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EDUCATION

MSc in Data Science
2021 - Ongoing

École Polytechnique Fédérale de Lausanne
Lausanne

- Minor in Financial Engineering
- Relevant courses: Machine Learning, Applied Data Analysis, Markov Chains, Stochastic Calculus, Functional Programming

BSc in Mathematics
2018 - 2021

Eötvös Loránd University
Budapest

- Specialised in Pure Mathematics
- Relevant courses: Probability and Measure Theory, Statistics, Operation Research, Computational Theory, Deep Learning
- Bachelor thesis in Deep Learning on graph structured data and graph kernel SVM
- Participated in lectures and mentoring of the ELTE AI Research Group
- Took extracurricular classes within the Mathematics-Physics Workshop in Eötvös József Collegium

High School
2014 - 2018

Fazekas Mihály Gimnazium
Budapest

- Took Advanced Level School Leaving Exams in Maths, Physics, English with excellent grades
- Placed 27th in the Hungarian National Olympiad in Mathematics (OKTV) in 2018
- Solved mathematical problems in the monthly KöMaL journal, awarded from 2015 to 2018
- Participated in monthly math camps organized by The Joy of Thinking Foundation

WORK EXPERIENCE

Quantitative Finance Developer Internship
2021 April - 2021 August

Morgan Stanley
Budapest

- Built statistical and ML models to calculate prices and indexes for different assets in Object Oriented framework
- Data visualization and exploration with: Pandas, Numpy, Matplotlib
- Used technologies: Python, Linux, Git

Teaching
2016 - 2018

Logiscool
Budapest

- Held weekly block-based visual programming classes in Scratch for elementary students
- Gave lectures on android application coding using MIT App Inventor in summer camps

PROJECTS

- Studying Lobbying Influence in the European Parliament by analysing tweets with NLP and Graph ML techniques (EPFL Information and Network Dynamics Lab)
- Application of Monte-Carlo methods (Metropolis, Houdayer) to community detection problem (EPFL)
- ML project on Higgs boson recognition using data from proton collisions, all algorithms (OLS, Logistic Regression) implemented from scratch (EPFL)
- Data Analysis on quotes about movies made by people in news articles, IMDB rating and movie box office revenue using NLP, regression, time series and statistical methods (EPFL)
- Implemented graph and LP algorithms using Numpy, such as the Primal Simplex Method and the Ford-Fulkerson algorithm
- Implemented Reinforcement learning algorithms for Multi-armed Bandits problems (self-study)