Pricope Tidor-Vlad

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Education

• The University of Edinburgh, Scotland, UK. | 2020 - 2021

MSc in Artificial Intelligence. Coursework avg. 83.23/100. GPA: First class (4.0).

• Babes-Bolyai University, Cluj-Napoca, Romania. | 2017 - 2020

BSc in Computer Science. GPA: 9.87/10. Thesis: 10/10.

Work Experience

- Founder madsimpleads.com & neuraprep.com | June 2024 Present
- o Started 2 businesses: first one is a B2B SaaS that provides end-to-end image & video ad generation as a service.
- o Second one is a SaaS that provides interview preparation for AI jobs. It's leetcode.com but for data / ml space.
- o Tools used: Stable Diffusion, openAI, ComfyUI, Celery, Redis, Gunicorn, Nginx, Firebase, Next.js, Git, Aws, Baseten.
- Math Contractor Scale AI | October 2024 Present
- o Developed competition-level math prompts that stump state-of-the-art LLMs. Tools used: Latex, Geogebra.
- Machine Learning Engineer Lead Ntropy | August 2021 April 2024
- o Fintech company series A, developed and deployed language models for financial transactions understanding.
- Some of my work here is public and can be viewed on this medium post. Also built a smart cache system for LLMs.
- Hiring operations interviewed over 100 candidates for machine learning and data science roles at Ntropy.
- o Tools used: transformers in pytorch, onnx&triton, fasttext, sklearn, multi-gpu training, git, jupyterlab, aws, LLM.
- Quantitative Research Assistant Predictiva | April 2021 August 2021
- o Developed Deep Reinforcement Learning models for portfolio management for algorithmic trading.
- o Tools used: python, RLlib, tensorflow keras, cloud computing.
- Quantitative Research Intern Predictiva | February 2021 April 2021
- o Developed Deep Reinforcement Learning models for quantitative stock trading.
- Tools used: python, cloud computing.
- Udemy Instructor | June 2020 August 2020
- o I devised and published 2 AI courses. I had about 40 students on Udemy and 15 on Skillshare, with a rating of 4/5.
- Autonomous Driving Research Intern GmbH Robert Bosch | July 2019 Oct 2019
- o Developed optimization and simulation frameworks for camera windscreen distortions. Computer Vision.
- o Tools used: matlab, projective geometry, multivariable calculus, optimization through adaptive algorithms and ML.

Awards

- Second place at the IBM MLP Competition out of 101 projects. Project subject: AI Quantitative stock trading, 2021.
- Two Silver Medals at South Eastern European Mathematical Olympiad for University Students 2018-2019.

- Two Silver Medals in top 10 and a bronze medal in top 20 at National Mathematical Olympiad 2014-2016.
- Member of the extended national team for the International Mathematical Olympiad (IMO) 2014.
- Top 20 at National Chess Olympiad, 2017.
- Diploma from Babes-Bolyai University for academic performance 2018.
- Other 70+ prizes in math and chess international and national competitions 2005-2019.

Technical Skills

- Data Science & ML: Pytorch, Tensorflow Keras, Onnx, Triton, Scikit-learn, Pandas, Polars, Numpy, RAG.
- Programming Languages:
 - Very confident with: Python, Bash/Shell Scripting.
 - Comfortable with: C++, SQL, Matlab, Java, Next.js.

Publications – 81 academic citations – all single author

Google Scholar

- HardML: a benchmark for evaluating data science and Machine Learning Knowledge and reasoning in AI. Published in the international journal Studia UBB Informatica, Vol 69, No 2, Feb 2025. Single author. Link
- An analysis on very deep convolutional neural networks: problems and solutions. Published in the international journal Studia UBB Informatica, Vol 66, No 1, July 2021, indexed in Mathematical Reviews. Single author. Link.
- Deep reinforcement learning in quantitative algorithmic trading: a review on <u>Arxiv</u>, 2021. Single author.
- A view on deep reinforcement learning in imperfect information games. Published in the international journal Studia UBB Informatica, Vol 65, No 2, October 2020, indexed in Mathematical Reviews. Single author. Link.
- A math problem published in the Crux Mathematicorum international journal; volume 44, no. 8, problem 4377 October 2018. Co-author. Link.
- Subject 3 at the first Romanian Team Selection Test for Junior Balkan Mathematical Olympiad 2015. Link.
- Deep Reinforcement Learning from Self-Play in no-limit Texas Hold'em Poker. Published in the international journal Studia UBB Informatica, Vol 66, No 2, 2021, indexed in Mathematical Reviews. Single author. Link.

Personal Projects

For more projects or additional information check my GitHub page or my website's projects and blog sections.

- Poker AI I developed 3 Poker agents, the best one using Deep RL with self-play and achieving expert human level.
- **Portfolio Management with DRL** my dissertation project with the scope of building a Deep Reinforcement Learning agent with a new reward function to optimize the profits and diversification on a portfolio of stocks.
- Quant-Trading AI I developed expert-system agents based on TA and LSTM. Back-tested on 20 different stocks.

Extracurricular Work

- In May 2021, I was invited to hold two 2h lectures on Reinforcement Learning for Babes-Bolyai University.
- Over the years, I devised and proposed over 40 math problems for the Romanian Mathematical Society.
- Started a local Chess Club back in 2013 to help teenagers get better at chess.
- Hobbies: astronomy, chess, value investing, math, table tennis, gaming.