Armand Nicolicioiu

AI ENTHUSIAST

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about

Highly interested in **Machine Learning** and **Neuroscience**. Experienced with **algorithms** and **data structures** and a big fan of **competitive programming**.

skills

- Pytorch, Tensorflow
- Python, C
- C++, C#, Java
- Haskell, Scala
- MATLAB, OpenCV

acomplishments

- Qualified to the **ACM-ICPC Southeastern European Regional Contest** as a **1st year** student.
- **Finalist** in a **National Olympiad** every year since 6th grade (mathematics, physics and informatics), obtaining **medals and awards.**
- **Won** multiple college level **contests** and **hackathons**.

links

- github.com/ArmandNM
- hackerrank.com/ArmandNM
- codeforces.com/profile/ArmandNM
- armandnicolicioiu.github.io

education

Master in Artificial Intelligence
University of Bucharest (2020 - 2022)
- Thesis: Research in **out-of-distribution generalization** by **diversifying** Attention heads in **Vision Transformers.**

Bachelor in Computer Science and Engineering
Politehnica University of Bucharest (2015 - 2020)
- Thesis: Research in **meta-learning** and **few-shot** classification using **Graph Neural Networks** and **Attention** mechanisms.

work experience

Software Engineering Intern
Google, Zürich, Switzerland (June 2022 - September 2022)
- Using **large language models** to process the transcripts of YT videos.
- Generating **realistic synthetic data** to complement existing training sets.

Machine Learning Researcher
dotLumen, Cluj-Napoca, Romania (October 2020 - November 2021)
- Prototyped a headset to **help blind persons** be more independent.
- Multi-modal **environment understanding** using Computer Vision.

Software Engineering Intern
Microsoft, Redmond, WA, USA (July 2019 - September 2019)
- Designed and built a fast **generic trending system** for **large scale** data.
- **Microservices pipeline** for ingestion, processing, storing and retrieval.

Software Engineering Intern
Microsoft, Redmond, WA, USA (July 2018 - September 2018)
- Improved Azure's **real-time telemetry** monitoring system by generating **recommendations** that lead to a **faster resolution of alerts**.

Machine Learning and Computer Vision Junior Researcher
Arnia Software, Bucharest (January 2017 - November 2017)
- Developed algorithms for **improving the HDR camera mode** of phones.
- Researched **generic object segmentation** and **color perception**.

Machine Learning Engineer Intern
Sparktech Software, Bucharest (July 2016 - October 2016)
- Built a **recommender system** for a coupon site from scratch.

research

Study on Topological Noise Invariant Features

International Conference on Learning Representations (ICLR 2021)

- Improved the differential geometry and topology libraries Giotto-TDA and Geomstats during the Computational Geometry & Topology Challenge at ICLR.
- Our team won the **1st place** and we co-authored the paper summarizing the results.

Epileptic Sleep Study

Neuroscience Laboratory, "Carol Davila" University Bucharest (July 2020 - Present)

- Built ML models for **epileptic seizure detection** and **sleep staging** in mice.
- Created a semi-automated labeling tool for EEG & EMG signals.

summer schools

Eastern European Machine Learning (EEML)

Bucharest (July 2019), Virtual (2020, 2021)

- Attented lectures and practical sessions held by **experienced researchers from all across the globe**.
- Acted as a volunteer in the preparation and during the school. (2019)
- Presented my research poster on Meta-Learning for Few-Shot Learning.
- Received a **Best Poster** award (Deep Learning, 2020).

Multi-Agent Systems and Learning Agents

AI-MAS Laboratory (June 2016)

- Introduction to the fields of machine learning and multi-agent systems.
- I won the contest for the **best research idea**.

teaching experience

Undergraduate Teaching Assistant

Politehnica University of Bucharest (October 2016 - October 2021)

- TA for: **Data Structures** and **Computer Programming** classes.
- I **taught laboratory classes** and helped students solve the exercises.
- Prepared **complex assignments** for the entire class of 150 students.
- Proposed questions for the final exam and helped evaluating and grading.