Aron Bencsik

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MSc Advanced Computer Science graduate from The University of Manchester, with industrial experience in AI engineering and full-stack development. Within AI, I specialise in computational neuroscience and neuromorphic computing.

EXPERIENCE

AI Research Intern | *Northumbria University* May 2023 - Aug 2023

- Developed a Gym API environment to model organizational cooperation.
- Experimented with RL architectures using OpenAI Baselines and investigated the feasibility of large-scale multi-agent reinforcement learning.
- Technologies: **TensorFlow, PyTorch, GymAPI, OpenAI Baselines.**

Machine Learning Engineer | *Glia Research, Budapest (Remote)* Jan 2023 - May 2023

- Managed a team of 4 developers in building a Reinforcement Learning-based energy management system for industrial greenhouses–achieving a reduction of 10% compared to conventional thermostats (Link).
- Using the interface developed in Node.js, Glia demonstrated the product to representatives from the Government of Hungary.
- Technologies: **Node.js, PyTorch, MySQL, Docker.**

Machine Learning Intern | *Institute for Computer Science and Control, Budapest* Jun 2022 - Oct 2022

- Applied Deep Learning for microbe monitoring in water reservoirs for the Budapest Waterworks.
- Technologies: **PyTorch, TensorFlow, OpenCV.**

Full-stack Developer | *Glia Research, Budapest* May 2019 - Sept 2020

- Developed and revamped several websites using ReactJS, including the corporate website of Glia.
- Developed an Android application to collect weather information from a LoraWAN network.
- Technologies: **ReactJS, React Native, PHP, HTML, CSS, WordPress, JavaScript, Java, C#.**

EDUCATION

MSc Advanced Computer Science: Artificial Intelligence *Distinction* Sept 2023 - Sept 2024

The University of Manchester | *Manchester, UK*

- Modules: Foundations of ML | Representation Learning | Robotics & Computer Vision | Text Mining
- Thesis title: A Benchmarking Framework for Neuromorphic Network-on-Chip Architectures (Link).

BSc Computer Science with Artificial Intelligence with Honours *First Class* Sept 2020 - May 2023

Northumbria University | *Newcastle upon Tyne, UK*

- Modules: Intelligent Systems | AI & Robotics | ML & Computer Vision | Computational Neuroscience
- Thesis title: Detecting Stock Market Manipulation Using Spiking Neural Networks (Link).

CERTIFICATIONS & SEMINARS

Fundamentals of Deep Learning Aug 2024

Nvidia

AI Alignment Bootcamp Apr 2024 - May 2024

ML4Good

PROJECTS

Sentiment Analysis Using LSTMs | Link | *AI & Robotics (Course project)* 2023

- An SA method of written text using an LSTM developed in PyTorch. The project contains a GUI, written using Tkinter.

Face Image Manipulation Using Cycle-GANs | Link | *Intelligent Systems (Course Project)* 2021

- Developed a Cycle-GAN architecture in MATLAB and trained on the AffectNET and CelebA datasets.

Acoustic Side Channel Exploit Using CNNs | Link | *Software Engineering (Course Project)* 2020

- A CNN developed in Keras, which can distinguish letters on a keyboard from the sound of the keypress, with an accuracy of 97%.

VOLUNTEERING

Student Representative | *University of Manchester Students' Union* Sept 2023 - Sept 2024

- Representing Advanced Computer Science students in Staff Student Liaison Committee meetings.