

Bruno K. Mlodozieniec

Information / Machine Intelligence Engineering Undergraduate · Third Year

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Experience

University of Cambridge

August - October, 2018

Machine Intelligence Laboratory Intern | Undergraduate Research Opportunity Project

Cambridge, UK

- Worked with Prof Gales on detection of response relevance to a prompt for spoken language learning assessment.
- Investigated various methods for training uncertainty aware neural networks with an attention mechanism including Deep Ensembles and Deep Prior Networks, as well investigated ensemble compression using Prior Networks.
- The research I have conducted during the internship is currently being drafted into a paper.

Harvard University | School of Engineering and Applied Sciences

July - August, 2018

Visual Computing Group Intern

Cambridge, USA

- Worked on deep learning methods for motif discovery and network (graph) comparison for biological networks.
- The goal of the internship was to investigate options for analysis of large connectomics graph datasets representing biological neural networks derived from the 3D segmentation of EM brain images performed by the Visual Computing Group.

Cisco Systems

July - September, 2017

Machine Learning and Deep Learning Intern

Oslo, Norway

- Worked on Wake Word Detection for Cisco Webex.
- Trained various deep NN architectures including convolutional and recurrent neural networks for the problem of keyword spotting.
- Developed a Python routine for training, validating and testing keyword spotting models with efficient off-GPU example queuing.
- The model developed during the internship outperformed previous solutions.

Education

University of Cambridge | M.Eng. in Information Engineering

2016-2020

Emmanuel College

Cambridge, UK

Year 1 Performance: 1st Class. Top 10% of class.

Year 2 Performance: 1st Class. Top 8% of class. Awarded Rowley Mainhood College Prize for academic performance on exams.

Courses include:

Inference
Linear Algebra

Information Theory
Optimisation

Bioengineering
Linear Systems

Neuroscience
Signal Processing

Coursework includes:

- Programming: Python, C++, Version Control and Collaborative Programming with **git**, Microprocessors
- IDP: Integrated Design Project. In a team of six we collaborated to build and test an autonomous mobile robot for a student competition, including software in C++.

Additional Computer Science Modules:

Foundations of Data Science

Machine Learning and Real-world Data

Kristiansand Katedralskole Gimle

2014-2016

International Baccalaureate (IB)

Kristiansand, Norway

- IB Diploma score: 43 / 45.
- Extended Essay and Theory of Knowledge grades: A & A

Programming Skills

• Python ●●●

• TensorFlow ●●●

• PyTorch ●●○

• C++ ●●○

Honors & Awards

Royal Academy of Engineering

2018

| Leaders Scholarship

Royal Academy of Engineering, UK

- I was named a Royal Academy of Engineering Leaders Scholar.
- The scholarship scheme is aimed at supporting engineering undergraduates who have the potential to become leaders in engineering and who are able to act as role models for future engineers.

International Mathematical Olympiad (IMO)

July, 2015

| Honourable Mention

Chiang Mai, Thailand

- 2nd best score on the Norwegian team.
- Undertaken a week-long preparation camp to develop formality and creativity in mathematical thinking, as well as improve my general problem solving skills.

Norwegian Mathematical Olympiad

March, 2016

| 3rd place

Trondheim, Norway

- Based on my performance in the national olympiad, I was selected to represent Norway in the International Mathematical Olympiad (IMO) and the teamwork-oriented Nordic Mathematical Olympiad (NMC)

Norwegian Physics Olympiad

April, 2016

| Finalist

Oslo, Norway

Societies

2018 - Now **Co-founder, Chairman**, Cambridge University Machine Intelligence Network

Cambridge

- Co-founded a society with the aim of providing a platform for students with interest in machine intelligence to collaborate, organise workshops, and coordinate teams to participate in machine learning competitions and run machine learning projects.

2016 **Presenter**, Hackers at Cambridge

Cambridge

- Lead a workshop sponsored by Docker on their platform for the university students.
- Collaborated to come up with ideas, prepare, and run workshops.

2014 - 2016 **Vice-president**, Amnesty International - Kristiansand Youth Division

Kristiansand, Norway

- Initiated projects and events to of advocate against human rights violations.

Other

Languages:

Native Level:

English

Norwegian

Polish