

Louis Robinson

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EDUCATION

MSc Machine Learning

2020-21 *Currently completing* - UCL

Supervised Learning	Robotic Systems Engineering
Probabilistic & Unsupervised Learning	Bioinformatics
Statistical Learning Theory & Kernels	Multi-Agent Artificial Intelligence
Machine Vision	Machine Learning Seminar

MSci Natural Sciences | MATHEMATICS & COMPUTER SCIENCE

2016-20 *First Class* - Durham University

Dissertation Project:

Determinantal Point Processes and Reinforcement Learning

Mathematics Modules:

Bayesian Statistics	Differential Geometry	Complex Analysis
Partial Differential Eqns	Quantum Information	Mathematical Physics
Statistical Methods	Decision Theory	Mathematical Modelling
Operations Research	Analysis in many Variables	Probability

Computer Science Modules:

Recommender Systems	Network Analysis	AI Search
Bioinformatics	GPGPU programming	Image Processing
Games	Functional & Logic Prog.	Digital Communication
Quantum Computing	Web & Systems Prog.	Computer Graphics

A-Levels

2014-16 Sir William Borlase's Grammar School

Maths: A*, Further Maths: A*, Physics: A*, Chemistry: A, AS-Level Biology: B

GCSEs

2008-13 Gillotts Comprehensive Secondary School

Mathematics: A, English: A, Physics: A, Chemistry: A, Biology: A, German: A, Art: B, History: B, IT: B, English Literature: B, Religious Studies: C.

WORK EXPERIENCE

2019 Jul-Sep Research Assistant

University of Oxford, Nuffield Department of Primary Health Care Sciences, Oxford OX2 6GG.
Assisted on a large systematic review of obesity research. Attended workshop 'Reporting statistical methods and results'.

2018 Mathematics and Physics A-level Tutor

2015-17 Cinema Front of House

Regal Picturehouse, Henley on Thames, RG9 2BZ.

2015 Oct Shadowed medical team

dept, Heatherwood Hospital, SL2 4HL.
Observation of MRI, CT, ultrasound.

2012 Helicopter repair business

Heli Air, Wycombe Air Park, High Wycombe, SL7 3DP.

2011-12 Volunteer for Cancer Research UK

Duke Street, Henley on Thames, RG9 1UR.

REFERENCES

References available on request.

PROGRAMMING

Advanced:

Python (SciPy, PyTorch, TensorFlow) • R • C • C# (with Unity)

Experience using:

HTML • JavaScript • MatLab • WebGL • Haskell • Git • Docker • GCloud

EXTRACURRICULAR (SUMMER 2020)

* Implemented:

- All the sequence algorithms in "Deep Learning" Goodfellow, Bengio & Courville.
- A Neural Turing Machine, Graves et al.
- Attention Mechanisms, such as location-based, Bahdanau, self and multi-head.
- A Transformer, Vaswani et al.

EXTRACURRICULAR (SUMMER 2019)

- * Read "An Introduction to RL" Sutton & Barto, and implemented all the algorithms in Python.
- David Silver, RL course.

EXTRACURRICULAR (SUMMER 2018)

- Stanford University, ML, Andrew Ng.
- MIT, AI, Patrick Winston.
- Udemy: ML A-Z (Python & R).
- Coursera, Princeton, Algorithms Part 1.
- Udemy: Complete guide to TensorFlow.

* See my website/github (linked in header).

AWARDS

Natural Sciences MSci Prizes:

- Peter Rowe Undergraduate Memorial Prize from the Department of Mathematical Sciences, Durham.
- Natural Sciences Award Outstanding Achievement.

Other Achievements:

2015 STEM Crest project

How renewable power can be more efficiently stored, specifically vanadium redox batteries.

2014 Engineering Headstart Course

First prize for plane design, University of Bristol.

2013 Music

Grade 5 theory. Grade 6 level piano.

2012-13 Duke of Edinburgh's award

Bronze and Silver. Gold award (1 stage to complete).

2008 MindLab, UK

Olympic Finals, Oxford.