

Rob Weston

PHD STUDENT · APPLIED ARTIFICIAL INTELLIGENCE LAB, UNIVERSITY OF OXFORD
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rob-weston-a1289a177 | 🎓 Rob Weston | extra informations



Summary

A final year PhD student at the Applied Artificial Intelligence (A2I) Group, University of Oxford, researching at the intersection of machine Learning, autonomous driving and robotics.

Education

PhD in Machine Learning and Robotics

Oxford, United Kingdom

APPLIED ARTIFICIAL INTELLIGENCE GROUP, UNIVERSITY OF OXFORD

Oct. 2017 - ongoing

- Using probabilistic and self-supervised deep learning and vision approaches to improve radar perception systems for autonomous vehicle and mobile robotic applications
- Experience of working with segmentation, detection, odometry, and GAN models
- Supervised by Prof. Ingmar Posner

MEng Engineering Science

Oxford, United Kingdom

UNIVERSITY OF OXFORD

Oct. 2013 - Jun. 2017

- 1st class honours
- Specialised in Information Engineering, Robotics, Mathematical Engineering, Machine Learning, Control Theory

Experience

INDUSTRY

Data Science Internship

Oldham, United Kingdom

INNOVATIVE TECHNOLOGY

Jun. 2017 - Sep 2017

- Using Gaussian processes for hyper-spectral bank note validation

ACADEMIC

Undergraduate College Lecturer and Admissions

Oxford, UK

KEBLE COLLEGE, UNIVERSITY OF OXFORD

March 2018 - Present

- Teaching 1st and 2nd year undergraduate students Civil and Electrical Engineering
- Interviewed potential applications for undergraduate Engineering Science at the University of Oxford

Publications

There and Back Again: Learning to Simulate Radar Data for Real-World Applications

ICRA

Rob Weston, OIWI PARKER JONES, INGMAR POSNER

2021

- Under Review

Masking by Moving: Learning Distraction-Free Radar Odometry from Pose Information

CORL

DAN BARNES, Rob Weston, INGMAR POSNER

2019

- Published as a conference paper at the Conference on Robot Learning (CORL) 2019

Probably Unknown: Deep Inverse Sensor Modelling In Radar

ICRA

Rob Weston, SARAH CEN, PAUL NEWMAN, INGMAR POSNER

2019

- Published as a conference paper at the International Conference on Robotics and Automation (ICRA) 2019

Events and Conferences

Sep 2019 **Keynote**, "Self-supervised learning for autonomous vehicles" at the Deep Learning Summit

London, UK

June 2019 **Keynote**, Workshop on self-supervised learning for autonomous vehicles, International Vehicle Symposium

Paris, France

June 2019 **Speaker**, "Why doesn't my car drive itself yet?" at Keble College AI Symposium

Oxford, UK

May 2019 **Poster**, International Conference on Robotics and Automation

Montreal, Canada

Software

Xmen

UK

PYTHON EXPERIMENT API

January 2020 - Present

- Developed a python experiment API and command line tools to facilitate fast clean and reproducible experimentation
- Automatic experiment configuration compatible with the SLURM job manager
- Find it at <https://github.com/robw4/xmen>

Outreach

The Brilliant Club

UK

SCHOLARS PROGRAMME TUTOR

September 2018 - March 2019

- Curated and delivered an introductory university-style course on Machine Learning and autonomous vehicles for years 10 - 13 designed to encourage students from under represented backgrounds to apply to top UK universities

Keble At Large Access Project

Oxford, UK

KEBLE COLLEGE, UNIVERSITY OF OXFORD

September 2013 - Present

- Presented university-style taster lectures on Machine Learning and autonomous vehicles to groups of thirty students
- Participated in Q&A sessions to dispel the myths of the Oxford interview process and engineering admissions

Skills and Interests

Programming Python (advanced), C++ (proficient), HTML, CSS, JavaScript (Exposure)

Frameworks Pytorch, Tensorflow, OpenCV, Eigen

Interests Climbing, Cycling, Running, Being Outdoors, Life Drawing