BRADLEY GRAM-HANSEN

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Publications

EXPERIENCE

Research Internship with the European Space Agency, Oxford University, SA Catapult, NVidia and UNICEF

Frontier Development Lab

m Jun 2018 - Oct 2018

Oxford, UK & Esrin, IT

- Developed an automated framework for detecting informal settlements.
- The framework was computationally and cost efficient.
- Had never been accomplished with low-resolution imagery before.
- We only had 8 weeks to find the data and come up with a solution.
- Code is open-sourced **here** and there is a blog post **here**.

Research Internship with the EPSRC

Mathematical Physics Group, University of Nottingham

Nottingham, UK

- Supervised by Professor Gerardo Addesso, Professor Ivette Fuentes and Dr Antony Lee.
- Developed novel techniques for analysing quantum channels and maps.

AWARDS

Academic

| | • The Earth |
|-----------|---|
| 2019 | Neurlps2019 Travel Award |
| 2018 | FDL Award for Unexpected Discovery |
| 2016-2020 | EPSRC Fully-Funded 4-Year PhD Studentship |
| 2014 | EPSRC Summer Research Award |
| 2014 | BP Ambition Award |
| 2012 | Eliahou Dangoor Scholarship |
| 2012 | PWC High Flyers Award |
| 2011 | Sir Peter Mansfield High Achiever Scholarship |
| 2011-2015 | St Ann's Experian Scholarship |
| 2011-2015 | First in the Family Scholarship |
| 2010 | Excellent Dedication and Contribution A-level Physics |
| 2010 | Interest and Enthusiasm A-level Mathematics |

Sporting

| Ongoing | • The Earth |
|-----------|--|
| 2016 | 11 th in age group, IronMan Copenhagen. Qualified to |
| | represent the UK for Long Distance Duathalon |
| 2016 | Silver Medal, Nottinghamshire Fell Running Championships |
| 2005-2007 | National Mini-field youth hockey champion U13 and U15 |

INVITED TALKS

| 2019 | Invited by the UN to give a talk on AI for space at |
|------|---|
| | the AI for good global summit, Geneva, CH. |
| 2018 | Invited to the Oxford centre for Human Brain Activity |
| | to give a talk on Probabilistic Programming. Oxford, UK |
| 2018 | Invited to ESA Esrin to give a talk on using machine learning |
| | to detect informal settlements. Esrin, IT |

EDUCATION

PhD in Machine Learning

University of Oxford

Supervisors: Prof Yee Wyhe Teh • Dr Tom Rainforth • Dr Atılım Günes Baydin • Prof Phil Torr

- Developing frameworks for automating inference
- Machine learning for health and societal uses.
- Published at NeurlPS, AISTATS, AAAI, etc.

MMath in Mathematics

University of Nottingham

Sept 2011 - Jul 2015♥ Nottingham, UK

• First, 75% Average

PROGRAMMING SKILLS

Python
Pytorch, Numpy, Scipy
Matlab
Latex & Markdown
Git & Docker
Clojure & C++



TECHNICAL SKILLS

Probabilistic Programming

Markov Chain Monte Carlo

Gaussian Processes Regression

Classification Deep Learning

Bayesian Inference Time Series

Linear Algebra

Quantum and Classical Mechanics

Differential Equations

SOFTSKILLS

Team Work Agile Observant
Responsible Hard-Working

LANGUAGES

English Madarin, *Learning* French



REFERENCES

Several available upon request.