

# BRADLEY GRAM-HANSEN

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📖 Blog

🔗 [bayesianbrad](#)

🎓 Publications

## EXPERIENCE

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

### Frontier Development Lab

📅 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.
- Only 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

📅 June 2014 – Sept 2014

📍 Nottingham, UK

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

## AWARDS

### Academic

📅 Ongoing

📍 The Earth

- |           |   |
|-----------|---|
| 2019      | NeurIPS2019 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 Awards

📅 Ongoing

📍 The Earth

- |           |   |
|-----------|---|
| 2016      | IronMan Copenhagen 11th in age group and qualified to represent the UK for Long Distance Duathlon |
| 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, <i>Geneva, CH</i> .               |
| 2018 | Invited to the Oxford centre for Human Brain Activity to give a talk on Probabilistic Programming. <i>Oxford, UK</i> |
| 2018 | Invited to ESA Esrin to give a talk on using machine learning to detect informal settlements. <i>Esrin, IT</i>       |

## EDUCATION

PhD in Machine Learning

### University of Oxford

📅 Oct 2016 – Oct 2020

**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 NeurIPS, AISTATS, AAAI, etc.

MMath in Mathematics

### University of Nottingham

📅 Sept 2011 – Jul 2015 📍 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.