

Oliver Hamelijnck

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OBJECTIVE

My research explores Machine Learning methods, such as Gaussian processes, to advance spatio-temporal models for real-world phenomenon

EDUCATION

PHD, COMPUTER SCIENCE UNIVERSITY OF WARWICK

Alan Turing Institute Doctoral Student 2019

Efficient Spatio-Temporal Inference for Gaussian Processes

MENG, COMPUTER SCIENCE UNIVERSITY OF WARWICK

Graduated with First Class Honours degree

A LEVELS + GCSES

A levels: A*AA in Maths, Chemistry, Physics

GCSEs: 4 A*s, 5As, 1B including Maths and English

PUBLICATIONS

SPATIO-TEMPORAL VARIATIONAL GAUSSIAN PROCESSES

TO APPEAR AT THE THIRTY-FIFTH CONFERENCE ON NEURAL INFORMATION PROCESSING SYSTEMS, NEURIPS 2021

O. Hamelijnck*; W.J. Wilkinson*; N.A. Loppi; A. Solin; T. Damoulas;. * = Joint first authors
 #2 Publication venue in Artificial Intelligence (*H index, Google Scholar*)

TRANSFORMING GAUSSIAN PROCESSES WITH NORMALISING FLOWS

PROCEEDINGS OF THE 24TH INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE AND STATISTICS, AISTATS 2021

J. Maronãs*; O. Hamelijnck*; T. Damoulas; M. Steel. * = Joint first authors
 #16 Publication venue in Artificial Intelligence (*H index, Google Scholar*)

NON-STATIONARY NON-SEPARABLE GAUSSIAN PROCESSES

INTERNATIONAL CONFERENCE ON MACHINE LEARNING, ICML 2020

K. Wang; O. Hamelijnck; T. Damoulas; M. Steel

#3 Publication venue in Artificial Intelligence (*H index, Google Scholar*)

MULTI-RESOLUTION MULTI-TASK GAUSSIAN PROCESSES THIRTY-THIRD

CONFERENCE ON NEURAL INFORMATION PROCESSING SYSTEMS, NEURIPS 2019

O. Hamelijnck; K. Wang; T. Damoulas; M. Girolami

#2 Publication venue in Artificial Intelligence (*H index, Google Scholar*)

WORK EXPERIENCE

AMAZON | RESEARCH SCIENTIST INTERN

March - August 2021 | Virtual

- Developed and implemented optimisation models to handle uncertainty from demand forecasts
- Close collaboration with the business team to bring optimisation models into production

2019

2013

2017

2008

2013

LINKS

Github:// [ohamelijnck](https://ohamelijnck.github.io)

G-Scholar:// [CZTISTEAAAAJ](https://scholar.google.com/citations?user=CZTISTEAAAAJ)

Website:// ohamelijnck.github.io

PROGRAMMING

Python
 Jax
 PostgreSQL
 Tensorflow
 Java
 C/C++



2021

2021

2017
2019

ALAN TURING INSTITUTE | RESEARCH ASSISTANT

2017-2019 | London, UK

- Brought in to research and develop machine learning models to forecast air pollution across London
- Developed multiple state-of-the-art Gaussian Process models resulting in publications in top-tier conferences

2014
2015

MODALITY SYSTEMS | SOFTWARE ENGINEER, INTERN

Summers 2014-2016 | Norwich, UK

- Explored and assessed the commercial benefit of a beta-released library (using AngularJS)
- Extended an automated test suite to support new products

SKILLS

Tenacity	● ● ●
Collaboration	● ● ●
Creativity	● ● ●
Team Player	● ● ●

HOBBIES

Climbing/Bouldering
Bread Making
Playing Guitar

FELLOWSHIPS AND AWARDS

ALAN TURING INSTITUTE DOCTORAL FELLOWSHIP | 2019 - PRESENT
Award covers tuition fees, travel funds and stipend

NEURIPS TRAVEL AWARD | 2019

DEPARTMENTAL COURSEWORK PRIZE | 2013
Coursework ranked in the top 5 out of 150

INVITED PRESENTATIONS

THE UNIVERSITY OF TÜBINGEN - METHODS OF MACHINE LEARNING GROUP SPATIO-TEMPORAL VARIATIONAL GAUSSIAN PROCESSES | JULY 2023
Tübingen, Germany

WARWICK MACHINE LEARNING GROUP SPATIO-TEMPORAL VARIATIONAL GAUSSIAN PROCESSES | NOVEMBER 2021
Virtual

AMAZON - ATS RESEARCH TRANSFORMING GAUSSIAN PROCESSES WITH NORMALISING FLOWS | MARCH 2021
Virtual

MLNET - UNIVERSITY OF SHEFFIELD MULTI-RESOLUTION MULTI-TASK GAUSSIAN PROCESSES - LONDON AIR QUALITY | JULY 2020
Virtual

LONDON BOROUGH DATA PARTNERSHIP MODELLING LONDONS AIR QUALITY | MARCH 2018
City Hall, London, UK

SELECTED PRESENTATIONS

ICML NONSTATIONARY NONSEPARABLE RANDOM FIELDS
Poster Presentation | Virtual

NEURIPS MULTI-RESOLUTION MULTI-TASK GAUSSIAN PROCESSES
Poster Presentation | Vancouver, CAN

DATA-CENTRIC ENGINEERING READING GROUP SPARSE GAUSSIAN PROCESSES | JULY 2019
The Alan Turing Institute, London, UK