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

2019

PHD, COMPUTER SCIENCE University of Warwick
Alan Turing Institute Doctoral Student 2019
Efficient Spatio-Temporal Inference for Gaussian Processes

2013
2017

MENG, COMPUTER SCIENCE University of Warwick
Graduated with First Class Honours degree

2008
2013

A LEVELS + GCSES
A levels: A*AA in Maths, Chemistry, Physics
GCSEs: 4 A*s, 5As, 1B including Maths and English

LINKS

Github:// **ohamelijnck**
G-Scholar:// **CZTISTEAAAAJ**
Website:// **ohamelijnck.github.io**

PROGRAMMING

- Python
- Jax
- PostgreSQL
- Tensorflow
- Java
- C/C++

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. Maronas*; 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

2021
2021

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

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