Steven Kleinegesse

PhD Student in Data Science

Interested in the intersection of machine-learning and Bayesian approaches to Data Science problems. Experience in theoretical and applied academic research in several domains.

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EDUCATION

PhD in Data Science
University of Edinburgh

09/2018 – Present   *Edinburgh, United Kingdom*

Thesis
- Machine-Learning Approaches to Bayesian Experimental Design for Implicit Models

MScR in Data Science
University of Edinburgh

09/2017 – 09/2018   *Edinburgh, United Kingdom*

Courses
- Machine-Learning and Pattern Recognition
- Probabilistic Modelling and Reasoning
- Machine-Learning Practical

MSci in Physics
Imperial College London

09/2013 – 06/2017   *London, United Kingdom*

Thesis
- Classification of Particles in High-Energy Collisions using Machine-Learning

WORK EXPERIENCE

Intern
Institute for Astronomy, University of Edinburgh

06/2015 – 08/2015   *Edinburgh, United Kingdom*

Achievements/Tasks
- Investigated the Missing Baryons Problem using an adaptive-mesh refinement code. Performed analysis of high-end computational simulations, both graphically and numerically.

Intern
University of Surrey

06/2014 – 08/2014   *Guildford, United Kingdom*

Achievements/Tasks
- Modelled strong gravitational lenses using a non-parametric software. Investigated cases of unusual mass distributions and compared them to data of real cases that were pro- ducing anomalous lensing.

Intern
Institute for Photonic Technologies

07/2012 – 08/2012   *Jena, Germany*

Achievements/Tasks
- Introduction to various research areas, including nanotechnology, cryogenics and semi- conductors. Focus was on measuring and testing semiconductor wafers for terahertz- imaging to be used in spacecrafts.

SKILLS

Machine-Learning · Data Science · Statistics · Physics · Research · Python · Pandas · TensorFlow · PyTorch · R · C/C++ · Linux

PUBLICATIONS

Efficient Bayesian Experimental Design for Implicit Models (2019) ↗
- AISTATS conference paper.
- Authors: Kleinegesse, S. & Gutmann, M.
- Publisher: In Proceedings of the 22nd International Conference on Artificial Intelligence and Statistics (AISTATS 2019). Vol. 89, PMLR, Naha, Okinawa, Japan, pp. 476-485.

Recognizing emotions in video using multimodal DNN feature fusion (2018) ↗
- ACL workshop paper.
- Authors: Williams, J., Kleinegesse, S., Comanescu, R., Radu, O.
- Publisher: Proceedings of Grand Challenge and Workshop on Human Multimodal Language (Challenge-HML), pp. 11–19. Association for Computational Linguistics (ACL).

TEACHING EXPERIENCE

Teaching Assistant (11/2019 – Present)
Course: Probabilistic Modelling and Reasoning (MSc Level)

Marker (10/2019 – 11/2019)
Course: Extreme Computing (MSc Level)

Tutor and Marker (01/2018 – 05/2018)
Course: Probabilistic Modelling and Reasoning (MSc Level)

VOLUNTEER ACTIVITIES

CDT in Data Science Student Rep (09/2017 – Present)

President of Kung Fu Society at ICL (09/2015 – 09/2017)

President of Physics Society at ICL (09/2014 – 09/2015)

LANGUAGES

German
Native or Bilingual Proficiency

English
Full Professional Proficiency

French
Elementary Proficiency

INTERESTS

Artificial Intelligence · Astronomy · Climbing · Scuba-Diving · Dancing · Boardgames