Jonathan Cook

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EDUCATION

University of Oxford Upcoming (Oct. 2022)
DPhil, Autonomous Intelligent Machines and Systems (CDT)

University College London In Progress
MSc, Computational Statistics and Machine Learning

University College London 2018-21
BSc, Theoretical Physics
First Class Honours

Beauchamp College, Leicester 2016-18
A-Levels
Mathematics (A*), Physics (A*), English Literature (A*)

RESEARCH EXPERIENCE

Master's Dissertation, UCL DARK Lab Current
- Supervised by Dr. Tim Rocktäschel.
- Researching generalisation in multi-agent reinforcement learning.

Data Science for Social Good Fellowship Jun-Aug 2021
- Worked with two United Nations agencies to predictively map the world's offline population.
- Developed a data gathering pipeline, machine learning models and data visualisations to aid internet policy discourse.
- Led presentation of findings to the Brazilian, Thai and Philippine governments.

Student Researcher, The Alan Turing Institute 2020-21
- Research Assistant to Dr. Barbara McGillivray.
- Built an awareness of language change into state-of-the-art deep learning models for offensive language detection.

Student Researcher, UCL Web Intelligence Group Jun-Sep 2020
- Supervised by Prof. Emine Yilmaz.
- Developed a state-of-the-art misinformation detection model using dynamic graph neural networks.
- Assisted Facebook AI Research in implementing the method following a conference publication.

INDUSTRY EXPERIENCE

Ideas-to-Opportunities Programme, London Business School Apr-Jun 2021
Worked with investors, entrepreneurs, academics and MBA students to uncover real-world applications of my prior research in machine learning applied to social media analysis.

CONFERENCES & PUBLICATIONS

Cook, J. *Mapping the World's Offline Population*, Spatial Data Science Conference (2021) (Talk)

Zhang, Q., Cook, J., Yilmaz, E., *Detecting and forecasting misinformation via temporal and Geometric Propagation Patterns*, Advances in Information Retrieval – 43rd European Conference on IR Research, Lecture Notes in Computer Science, Vol. 12657, Springer (2021)

SCHOLARSHIPS & AWARDS

Google DeepMind Scholarship   2021-22
Provides full tuition and maintenance stipend with equipment and academic travel grants. Additionally mentored by a Research Scientist at DeepMind.

Windsor Fellowship   2021-22
Representing low-income backgrounds in higher education.

PROGRAMMING SKILLS

- **Languages:** Python, R, MatLab, SQL, Git, Latex
- **Frameworks:** PyTorch, Tensorflow, Keras, Jax, Pandas, SciKit- Learn, Numpy, Plotly, MatPlotLib, Dash, MLFlow, Weights&Biases, Docker

SOCIETIES & RESPONSIBILITIES

Social Secretary, UCL Boat Club   2019-20
Aimed to foster diversity and inclusion, in a sport that has historically struggled with this, in all club events and social activities.

1st Boat Rower, UCL Boat Club   2018-21
Raced at the International Universities Rowing Regatta in Chengdu, China. Took part in cultural exchange activities with locals and student rowers from around the world.