

# Jonathan Cook

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## EDUCATION

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<b>University College London</b> MSc, Computational Statistics and Machine Learning	2021-22
<b>University College London</b> BSc, Theoretical Physics First Class Honours	2018-21
<b>Beauchamp College, Leicester</b> A-Levels Mathematics (A*), Physics (A*), English Literature (A*)	2016-18

## RESEARCH EXPERIENCE

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<b>Master's Dissertation, UCL DARK Lab</b> • Supervised by Dr. Tim Rocktäschel. • Researching generalisation in multi-agent reinforcement learning.	Current
<b>Data Science for Social Good Fellowship</b> • 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.	Jun-Aug 2021
<b>Student Researcher, The Alan Turing Institute</b> • Research Assistant to Dr. Barbara McGillivray. • Built an awareness of language change into state-of-the-art deep learning models for offensive language detection.	2020-21
<b>Student Researcher, UCL Web Intelligence Group</b> • 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.	Jun-Sep 2020

## INDUSTRY EXPERIENCE

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<b>Ideas-to-Opportunities Programme, London Business School</b> 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.	Apr-Jun 2021
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**Technology Spring Intern, Morgan Stanley**

Apr 2019

Handled a case-study on the life-cycle management of back-end systems. Focus on the Agile development framework.

**Blockchain Analyst, London Blockchain Labs**

2018-19

Used GraknAI to build a knowledge graph platform for interpretably managing blockchain logistics solutions.

## CONFERENCES & PUBLICATIONS

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McGillivray, B., Cook, J., Alahapperuma, M., Tondi, M., Tyson, G., Wilson, S. R., *Leveraging time-dependent lexical features for offensive language detection*, Natural Language Engineering Journal (In Press)

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 – 43<sup>rd</sup> European Conference on IR Research, Lecture Notes in Computer Science, Vol. 12657, Springer (2021)

## SCHOLARSHIPS & AWARDS

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**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

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- **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

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**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.

**1<sup>st</sup> 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.