

Hoffmann Fellow: Post-Doctoral Position in Assessing Business Risk from Climate Change at Hughes Hall

Department of Computer Science and Technology

Job Title	Hoffmann Fellow: Post-Doctoral Position in Assessing Business Risk from Climate Change – Hughes Hall, University of Cambridge
Location	Department of Computer Science and Technology, University of Cambridge, CB3 0FD
Reporting to	University of Cambridge: Director, Cambridge Zero, Reader in Environmental Data Science, Department of Computer Science and Technology (academic) Co-Director, Centre for Climate Engagement (administrative) World Economic Forum: Head, Climate Action; Deputy Head, Platform for Public Goods, World Economic Forum
Contract Type	Fixed term (2 years)
Probation Period	One Year
Salary Range	£30,497-£40,927 (SP38-SP48 on the University's Single Salary Spine)
Working Pattern	Full Time
Annual Leave	Annual paid leave of 25 days plus public holidays. Pro rata for part time members of staff.
Pension Eligibility	The College offers membership to a contributory pension scheme. The postholder may (subject to age and earnings level) be eligible for auto-enrolment into the scheme. This is optional and one has the right to opt out at any time.

Summary

The Centre for Climate Change Engagement at Hughes Hall is partnering with the Department of Computer Science and Technology to explore the role of machine learning in supporting the ability of companies and investors to accurately assess and quantify the business risks of climate change. The aims of this partnership are aligned with the Hoffmann Fellowship Programme at the World Economic Forum and match funding for this post will be available. The Centre for Climate Change Engagement currently collaborates with the World Economic Forum as secretariat for the Climate Governance Initiative and this provides useful synergies for the findings and outputs of the research.

The primary obligation of the postholder is to engage in research and its dissemination and to engage in the academic life of Hughes Hall and its Centre for Climate Change Engagement. The postholder will also be required to devote one day per week to the work of the Centre. The Hoffmann Fellow will be working in collaboration with the Forum, the Centre for the Fourth Industrial Revolution and the University of Cambridge. Depending on the locations, they will split up their time accordingly and will be required to travel to Geneva from time to time. The exact nature of this work will be subject to agreement between the postholder, the Centre and the supervisory team at the Department of Computer Science and Technology.

Hughes Hall

Hughes Hall is one of the 31 Colleges of the 800-year-old University of Cambridge, with over 800 students and 250 senior members. It is one of just four Colleges dedicated to undergraduates aged 21 and over and to postgraduates. A mission of the College is to use academic learning to bring about real change and growth in the world. It is one of the largest colleges for Law, which is a focus area of the College. The College is also non-hierarchical and works hard to ensure that its Research Fellows and Associates are integrated in the college community. The Bridge is an initiative at the college that seeks to connect academics with leaders in policy, practice, and commerce, in order to turn ideas and expertise into lasting change for the benefit of society. The Bridge supports its doctoral and post-doctoral researchers through its Impact Leadership Programme.

Hughes Hall Centre for Climate Change Engagement

The Centre for Climate Change Engagement was established in 2019 to engage with the corporate and financial sectors at the highest level (e.g., chairs of boards, non-executive directors, and senior executives), bringing them together with government, academics, and others within civil society. The Centre also aims to encourage scholarship on the legal, regulatory, financial, and other levers that will enable the scaling up of action across the corporate sector. The Centre works closely with Chapter Zero, a wholly owned subsidiary of the College, which aims to help non-executive directors engage with the potential business risks and opportunities associated with climate change and take this discussion into their boardrooms. It also works closely with Cambridge Zero, the University's climate change initiative, and other relevant centres such as the Cambridge Institute for Sustainability Leadership and the Centre for Science and Policy.

World Economic Forum

The World Economic Forum, committed to improving the state of the world, is the International Organization for Public-Private Cooperation. The Forum engages the foremost political, business, and other leaders of society to shape global, regional and industry agendas. The Forum hosts 18 platforms for advancing public-private cooperation on a range of global, regional and industry issues. The Forum's Climate Action Platform is helping businesses, governments, and NGOs accelerate and scale ambition and partnerships needed to drive a sustainable and inclusive future. The Climate Action Platform connects efforts on international climate policy, the energy, and land-use transitions, as well as nature and ocean systems, as critical elements to stemming climate change, while fully engaging the full spectrum of stakeholders needed to move onto a net-zero pathway. The Centre for the Fourth Industrial Revolution is a hub for global, multistakeholder cooperation to develop policy frameworks and advance collaborations that accelerate the benefits of science and technology.

About the Fellowship Programme

The André Hoffmann Fellowship for the Fourth Industrial Revolution offers early-career academics the opportunity to work at the intersection of society, science and technology through a joint appointment between the World Economic Forum and leading academic institutions.

The two-year Hoffmann Fellowship term is co-hosted evenly between the World Economic Forum and a partnering university. Fellows are expected to commit full-time to the role.

With joint guidance from a Forum project director and a faculty supervisor, the Fellow will help build and drive intensive collaborations among Forum and University Partners to deliver specific action-oriented outcomes through:

- Developing and executing initiatives to bring technology to bear on solving important global challenges
- Engaging Forum Partners – including leaders from the private sector, governments, international organizations, civil society, and faculty from diverse academic disciplines – to build selected initiatives
- Researching key issues and the potential to harness Fourth Industrial Revolution innovations to provide solutions

Post-Doctoral Position / Hoffmann Fellowship in Assessing Business Risk from Climate

The research project is aimed at ensuring companies, investors, and insurers have access to, and are using, consistent and credible data to calculate greenhouse gas emissions across value chains and assess the climate-related financial risks - both physical and transition risks - facing their sector.

This need has become more apparent and more critical because of the increasing frameworks and reporting systems that companies are being required to adhere to and that investors and other stakeholders are relying on to make decisions to support a transition to net-zero emissions. In particular, the project will focus on:

- The requirements of a universal reporting standard being developed by the IFRS
- The ESG metrics developed by the World Economic Forum
- The Greenhouse Gas Protocol
- New technologies available to collect, analyse and report data

The intent of the project is to identify the most credible and consistent sources of data required to provide the relevant information needed for these key reporting frameworks. This will incorporate data from diverse sources including remote sensing, climate models and mining of company reports and will include use of AI tools to source data and generate new data products.

The initial outline for the project would be to:

- Build on the 'Business Risk from Climate Change' project in partnership with the Judge Business School
- Map and review current methodologies and data sets used for carbon accounting and assessing climate-related financial risk, (including associated physical impacts and transition risk and data used in scenario analysis)
- Develop new approaches to produce relevant data products, including through use of AI tools to identify new datasets, trace data provenance, and integrate different dataset, and provide recommendations for improving the quality and consistency of data used for reporting and disclosure
- Provide recommendations for governance of climate and carbon data

The research would utilise AI, including to scan, assess and integrate data sets to produce decision-relevant information – it would also consider a range of 4IR applications for collecting and storing information e.g., remote sensing, sensor networks, drones etc.

The project would also explore data management applications to support accessibility of climate and carbon data.

Other aspects of the research could include case studies looking into specific sectors or geographies.

The research would ideally be directly linked to the IFRS/international sustainability reporting standards board development process (possibly via the International Organisation of Securities Commissions) and build from the work undertaken by the World Economic Forum on ESG metrics.

The World Economic Forum and Hughes Hall, University of Cambridge are looking for a Hoffmann Fellow contributing to this initiative while jointly reporting to Antonia Gawel at the World Economic Forum and Emily Farnworth, Centre for Climate Engagement at Hughes Hall, University of Cambridge with academic supervision by Dr Emily Shuckburgh, Environmental Data Science at the Department of Computer Science and Technology, University of Cambridge.

The role will be based at Hughes Hall, University of Cambridge, Cambridge, UK while jointly working with the World Economic Forum in Geneva.

HHCCCE will seek to act as an independent and trusted intermediary between Cambridge academia, the corporate and financial communities and government, and the postholder will be expected to play their part by providing legal input and expertise into the Centre.

Stipend and benefits

The stipend for the post will be calculated in line with the relevant spine point on the University's salary scale. The stipend is pensionable within the Universities Superannuation Scheme (USS), in which the post-doc will be enrolled. The postholder may be appointed as Research Associate in Hughes Hall (subject to approval by its Fellowships Committee) and enjoy a package of benefits.

Selection Criteria

Applications will be judged on the basis of the candidate's potential to undertake a significant, exciting, thoughtful and forward-looking research to support increased transparency and understanding of the impact of climate change on the economy. Willingness and potential to contribute to the collegiate academic community will also be taken into account. The position is intended to support someone at an early stage in their academic career.

Essential Knowledge, Skills and Experience

1. A degree in computing science.
2. A PhD degree, or equivalent experience, demonstrating exceptional research ability.
3. A proposed programme of research for the duration of the Fellowship that will make a valuable contribution to the candidate's field of the study.
4. Excellent writing and verbal communication skills, including the ability to present research findings effectively to fellow professionals at conferences and workshops and to audiences not familiar with the subject area.

Preferred requirements and experience

Candidates for the Hoffmann Fellowship come from a diversity of disciplinary and social backgrounds –in general, Hoffmann Fellows are at the earliest stages of their academic career.

- One key selection criteria for Fellow is related to diversity and inclusion. We do look for excellence, while at the same time, the programme aims to open opportunities for candidates from underrepresented groups and institutions.
- Proven understanding of the issue of climate change, climate-related financial reporting and disclosure, climate and carbon data, application of AI to analyse data, application of other digital technologies that will support more effective and accurate reporting of carbon emissions and climate-related financial risks and opportunities
- Hoffmann Fellows must have a demonstrated interest and/or experience in working on the nexus of technology and policy issues. They will also have excellent interpersonal skills, are self-starters with the ability to work both independently and as a member of a team and can manage multiple projects simultaneously.
- Any experience Hoffmann Fellows may have working in or collaborating with the public or private sector will be evaluated favourably.
- Hoffmann Fellows should have a demonstrated ability to work across different cultures and with high level officials and executives, as the Forum shares its work with a global audience.
- Hoffmann Fellows must have an excellent command of spoken and written English. Proficiency in other languages is an advantage for the candidate.
- Strong programme and project management experience with strong organizational skills
- Service-oriented team player with excellent communication and interpersonal skills, with an ability and active willingness to collaboration and jointly shape initiatives
- Willing to work in a highly demanding environment and ready to juggle multiple priorities
- Comfortable with change and ambiguity
- Hoffmann Fellows must be prepared to work in a dynamic and flexible organizational structure. They may be called upon to work independently, and also as a member of a team, or to manage multiple sub-projects simultaneously.
- Hoffmann Fellows must be proficient with recent digital platforms.

Application Process

Applications should be sent by email to hr@hughes.cam.ac.uk. Please include “Hoffmann Fellowship” in the subject line. All application materials must be in the English language.

The application deadline is **midnight (GMT) on 4 January 2022**.

Candidates should provide a completed application cover sheet in addition to:

1. Two Academic References. It is the candidate’s responsibility to ask their referees to send their letters in confidence to hr@hughes.cam.ac.uk by the application deadline. Referees should include “Hoffman Fellowship” in the subject line, and they should be asked to advise the College about the candidate’s achievements to date and their potential to make significant future research contributions. If the applicant is currently working on but has not completed a dissertation, one of the referees must be the applicant’s supervisor and attest to the expected submission date. Both references should be on institutional notepaper, signed and sent electronically.
2. **Academic transcripts** for all university degrees.
3. A **curriculum vitae**, including details of higher education, degrees awarded, positions held, language abilities, and publications.

- 4, A **statement** (of no more than 1000 words in length) containing descriptions of your current research and the research you propose to undertake during the Fellowship. The research proposal should include: a summary, an explanation of the specific research questions, and an explanation of the project's originality compared with current literature.
5. Up to **three writing samples**. An applicant could provide chapters of a research dissertation, published work or a combination of the two. The work need not be in its final form, but it should provide evidence of outstanding originality and research potential. Please include a declaration of contribution if the work has multiple authors.

Interviews will be held at Hughes Hall or by Teams/Zoom.

Screening Check Requirements / Right to Work in the UK

The appointment will be subject to satisfactory provision of proof of the right to work in the UK. Applicants who are not permanent residents entitled to work without restriction in the UK, will require a UK work permit; the College can provide some assistance with the necessary application, but final appointment is contingent upon this application being successful.

Right to work checks for EU, EEA or Swiss citizens can be found at: [Right to work checks: employing EU, EEA and Swiss citizens - GOV.UK \(www.gov.uk\)](https://www.gov.uk/employing-eu-eea-and-swiss-citizens)

Equal Opportunity

The policy and practice of Hughes College require that all staff are afforded equal opportunities within employment. Entry into employment with the College and progression within employment will be determined only by personal merit and the application of criteria which are related to the duties of each particular post and the relevant salary structure. In all cases, ability to perform the job will be the primary consideration. Subject to statutory provisions, no applicant or member of staff will be treated less favourably than another because of age, disability, gender reassignment, marriage or civil partnership, pregnancy or maternity, race, religion or belief, sex, or sexual orientation. You are encouraged to complete the College's Equality and Diversity Form which should be emailed to hr@hughes.cam.ac.uk.

Any information given will be processed for employment selection and statistical purposes. You will find all of the relevant Data protection Statements on our website at: <https://www.hughes.cam.ac.uk/wp-content/uploads/2021/06/Hughes-Hall-Data-Protection-Policy1.pdf>