

Lokesh Jain

Curriculum Vitae

School of GeoSciences
University of Edinburgh
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Overview

My research interests are in modelling ice-ocean interactions, with the specific focus of my PhD on iceberg melting. I am also a keen science communicator and engage in many outreach activities to inspire school students to study science. I am an enthusiastic polyglot and I am currently learning Kalaallisut (West Greenlandic).

Employment and Education

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| 2022 - | PhD in Atmospheric and Environmental Sciences <i>University of Edinburgh, UK</i> "Modelling the impact of ice mélange on tidewater glacier stability" Supervisors: Dr Donald Slater, Prof Peter Nienow, Prof Fiamma Straneo | |
| 2021 - 2022 | Technical Assistant <i>D Young and Co, Southampton, UK</i> Trainee patent attorney in the electronics and mechanical engineering team | |
| 2017 - 2021 | Master of Physics and Philosophy (MPhysPhil) <i>Brasenose College, University of Oxford, UK</i> MPhys Project: "Dissipation of tides in the convective envelope of stars" | First Class |
| 2016 - 2017 | International Baccalaureate <i>King Edward's School, Birmingham, UK</i> Higher Level: Maths, Physics, Chemistry Standard Level: Philosophy, French, English (6) | 44/45 |

Publications

- [4] **Impact of ice mélange thickness on mélange melt rate in Greenland's glacial fjords**
Lokesh Jain, Donald Slater and Peter Nienow, *Geophysical Research Letters* (in review)
- [3] **Environmental science exploration days: breaking the barriers, and widening participation in the Scottish capital**
Frederik Dahl Madsen, [...], Lokesh Jain, [...], and Nataša Honeybone, *Frontiers in Earth Science* (2026)
- [2] **Modelling ocean melt of ice mélange at Greenland's marine-terminating glaciers**
Lokesh Jain, Donald Slater and Peter Nienow, *The Cryosphere* (2025)
- [1] **Where do we want the glaciological community to be in 2073? Equality, diversity and inclusion challenges and visions from the 2023 Karthaus Summer School**
Lena Nicola, [...], Lokesh Jain, [...], and Benjamin Keisling, *Journal of Glaciology* (2025)

Awards

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| Jul 2025 | Outstanding Student Oral Presentation <i>International Glaciological Society's Symposium on Ice Streams and Outlet Glaciers</i> <i>Durham University, UK</i> Talk title: "Modelling ocean melt of ice mélange at Greenland's marine-terminating glaciers" | |
| Jun 2025 | E4 DTP Overseas Research Visit & Conferences Fund <i>E4 DTP, School of GeoSciences, University of Edinburgh, UK</i> Awarded by the E4 DTP to do a three-month internship at Arctic Hub | £900 |
| Jun 2025 | SAGES Small Grant <i>Scottish Alliance for Geoscience, Environment and Society</i> Awarded by the SAGES Research & Innovation Committee to attend the GRISO Summer School | £500 |
| Feb 2024 | Best Poster <i>GeoSciences GradSchool Conference, St. Andrews, UK</i> | |

Science communication

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| Jan 2026 | Finalist: Three Minute Thesis <i>Universitas 21</i> Finalist in the Universitas 21 Global Three Minute Thesis competition | https://bit.ly/3Nz8U98 |
| Jun 2025 | Winner: Three Minute Thesis <i>University of Edinburgh, Edinburgh, UK</i> Winner of The University of Edinburgh's Three Minute Thesis competition | http://bit.ly/3TDIQKX |
| Nov 2024 | Finalist: Paasisavut <i>Arctic Hub, Nuuk, Greenland</i> Finalist in Paasisavut , a science communication competition broadcast live on Greenlandic TV. Gave a five-minute presentation about my PhD research to the Greenlandic public live in Nuuk. The runup to the competition included being interviewed for the show, filming a video with Q's Greenland and participating in a two-day workshop run by a Greenlandic actress. | http://bit.ly/4bolmPZ |
| Nov 2020 | The Future of Space Exploration <i>TEDxYouth</i> | https://bit.ly/3oNMKyB |
| Jul 2020 | Tom Rocks Maths Supervisor: Dr Tom Crawford Maths communication internship: designed, scripted, filmed and edited five short educational videos on Pascal's Triangle | https://bit.ly/2SOeFU7 |

Outreach

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| Sep - Dec 2025 | Arctic Hub: Intern <i>Arctic Hub, Nuuk, Greenland</i> Worked as an intern at Arctic Hub, the Greenlandic research secretariat, in the run-up to Greenland Science Week (GSW). Helped to film and edit the opening and closing videos of the Greenland Science Conference, including interviewing local Greenlanders. Contributed to Arctic Hub's newsletter; helped draft radio and newspaper adverts for GSW, as well as social media posts. Travelled to Sisimiut and Sarfannguit representing Arctic Hub at GSW events. Working language was Danish; translated Arctic Hub articles from Danish to English. | |
| Feb 2025 | I'm a Scientist Academy <i>I'm a Scientist, Get me out of here</i> Competed The Academy, an online training course in STEM engagement and outreach run by the outreach organisation I'm a Scientist. The course included: building engagement of effective public engagement fundamentals; personal development of communication skills; participation in an online learning community. | |
| Jan - Apr 2025 | NERC Environmental Sciences Exploration Days <i>E4 DTP, School of GeoSciences, University of Edinburgh, UK</i> Outreach project aimed at inspiring school pupils (10- and 11-year-olds) from under-represented backgrounds to engage with environmental science Supported activities including building a mock wind turbine and counting sunspots to track the progression of the solar cycle | Facilitator |
| Jan 2025 - | I'm a Scientist <i>I'm a Scientist, Get me out of here</i> Outreach project connecting school students with scientists through energetic, real-time text-based chats. I regularly chat with school students across the UK. | <u>Scientist</u> |
| Sep - Nov 2024 | E4 Mentoring Scheme in Environmental Sciences <i>E4 DTP, School of GeoSciences, University of Edinburgh, UK</i> Mentoring scheme designed to improve accessibility by encouraging pupils from under-represented backgrounds to apply to higher education. Mentored an S6 pupil from a local high school: gave them a tour of the university campus; showed them university teaching; provided advice regarding higher education and life as a university student. | Mentor |

Teaching

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| Jan - Mar 2025 | Physics 1B <i>School of Physics and Astronomy, University of Edinburgh, UK</i> Undergraduate degree course: classical waves and optics, introduction to quantum mechanics, nuclear physics, particle physics, astrophysics Responsible for demonstrating in workshop sessions as students work through problems | Teaching Assistant (42 hours) |
| Oct - Dec 2024 | Fourier Analysis and Statistics <i>School of Physics and Astronomy, University of Edinburgh, UK</i> Undergraduate degree course: Fourier series, Fourier transform, Green's function for 2 nd order ODEs, PDEs and curvilinear coordinates, probability distributions, Bayesian inference Responsible for demonstrating in workshop sessions as students work through problems | Teaching Assistant (12 hours) |

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| Oct 2024 | Earth, Science and Data Analysis 2 <i>School of GeoSciences, University of Edinburgh, UK</i> Undergraduate degree course: introduction to mathematical modelling in Earth Sciences. Statistics, single and multivariable calculus, mathematical modelling of geoscience processes using ordinary differential equations Responsible for running drop-in tutorial sessions and demonstrating in computing practicals | Tutor and Demonstrator (4 hours) |
| Jan - Mar 2024 | Environmental Geography <i>School of GeoSciences, University of Edinburgh, UK</i> Undergraduate degree course (content includes an introduction to computer programming) Responsible for assisting students through the Introduction to Python sessions and marking Python reports looking at the characteristics of hydrological catchments across the UK | Demonstrator (16 hours) |
| Sep - Dec 2022 | Earth, Modelling and Prediction 2 <i>School of GeoSciences, University of Edinburgh, UK</i> Undergraduate degree course: calculus, vector calculus, differential equations, fluid flow, heat flow, river hydrodynamics Responsible for running tutorials going over problem sheets | Tutor (2 x 16 hours) |
| Sep - Dec 2023 | | |
| Sep - Dec 2022 | Global Change <i>School of GeoSciences, University of Edinburgh, UK</i> Undergraduate degree course: drivers of climate change from decades to millennia; responses of polar, temperate and tropical regions to change Responsible for running tutorials and marking degree essays | Tutor (45 hours) |

Conferences

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| Jul 2025 | International Glaciological Society Symposium on Ice Streams and Outlet Glaciers <i>Durham, UK</i> Talk: "Modelling ocean melt of ice mélange at Greenland's marine-terminating glaciers" | |
| Sep 2024 | International Glaciological Society British Branch <i>Liverpool, UK</i> Talk: "Sensitivity of ice mélange melting to subglacial discharge in Greenland's fjords" | |
| May 2024 | Scottish Alliance for Geoscience, Environment and Society <i>Glasgow, UK</i> Poster: "Modelling ocean melt of ice mélange at Greenland's marine-terminating glaciers" | |
| Apr 2024 | European Geosciences Union <i>Vienna, Austria</i> Poster: "Modelling ocean melt of ice mélange at Greenland's marine-terminating glaciers" | https://doi.org/10.5194/egusphere-egu24-17302 |
| Feb 2024 | GeoSciences GradSchool Conference <i>St Andrews, UK</i> Poster: "Modelling ocean melt of ice mélange at Greenland's marine-terminating glaciers" | |

Other Experience

Sep 2025 **Summer school: Greenland Ice Sheet Ocean Science (GRISO)**
Nuuk, Greenland
Attended the GRISO summer school with the theme "From Ice to Impact: Understanding Greenland's Glaciers and Coastal Change". Engaged with a wide range of topics related to science and culture around Greenland, its fjords and its ice sheet. The program included science lectures, presentations from local institutions, creativity and leadership training, and excursions. Worked in a group of three on a project analysing the fishing economy of Nuuk.

Jul 2024 **Sea Rider Competition for Early Career Researchers**
Quebec City, Quebec, Canada to St John's, Newfoundland, Canada
Attended the "Sea Rider" programme run by British High Commission Ottawa. One of six British and Canadian early career researchers to join the crew of the HMS Protector for a five-day voyage through the Gulf of St. Lawrence. Met the crew's hydrologists, navigators and professional mariners, as well as scientists at Université Laval and Memorial University.

May 2023 **Summer school: Ice Sheets and Glaciers in the Climate System**
Karthaus, Italy
Attended "Karthaus", a two-week long glaciological summer school aimed at providing a basic introduction to the dynamics of glaciers and ice sheets with a focus on ice-climate interactions. Worked in a group of three on a project modelling subglacial hydrology.

Apr 2023 **An Introduction to Polar Fieldwork for Early Career Researchers**
Ny Ålesund, Svalbard, Norway
Attended the NERC British Antarctic Survey Advanced Training Short Course aimed at enabling researchers to gain practical skills in polar environments. Conducted a radar survey on Midrelovenbreen Glacier and deployed CTDs in Kongsfjorden.

Feb - Mar 2023 **PropEco: Consultancy Innovation Placement**
PropEco, Glasgow, UK
Undertook a two-week consultancy innovation placement at PropEco, a climate technology company. I wrote a report which identified key ways to improve and integrate the various sources of flood risk data which PropEco uses to assess climate-related risks for any UK property.

Service

2024 - **Reviewer: Edinburgh Student Journal of Science**
Reviewer of the [Edinburgh Student Journal of Science](#), a student-run, peer-reviewed journal.

2022 - **E4 DTP Student Advisory Board**
E4 DTP, School of Geosciences, University of Edinburgh, UK
Responsible for organising the collection of feedback from fellow DTP students and reporting to the DTP management team

Memberships

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| Dec 2022 | Member of the International Association of Cryospheric Sciences |
| Dec 2022 | Member of the Association of Polar Early Career Scientists |
| Oct 2022 | Fellow of the Royal Astronomical Society |

Certificates

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| Dec 2024 | Applied Suicide Intervention Skills Training |
| Mar 2024 | Scottish Mental Health First Aid Course |

Skills

| Scientific Programming | | Modern Foreign Languages | |
|------------------------|----------------|--------------------------|---------------------|
| Python | Proficient | English | Native |
| MATLAB | Proficient | French | Working proficiency |
| Fortran | Familiar | Danish | Working proficiency |
| | | Hindi | Advanced |
| HPCs | ARCHER2, Eddie | Spanish | Advanced |
| | | Italian | Advanced |
| | | Dutch | Intermediate |
| | | German | Beginner |
| | | Greek | Beginner |
| | | Greenlandic | Beginner |

Older Experience: Awards

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| Aug 2021 | Highly commended as an Undergraduate Ambassador <i>Department of Physics, University of Oxford, UK</i> Awarded for extraordinary effort and achievements as a Physics Ambassador |
| Feb 2021 | Academic Scholarship <i>Brasenose College, University of Oxford, UK</i> Awarded for First Class exam results achieved in 2020 £250 |
| Nov 2020 | Academic Exhibition |
| Nov 2019 | Brasenose College, University of Oxford, UK Awarded for consistent academic excellence 2 x £200 |
| May 2019 | Access and Outreach Certificate <i>Brasenose College, University of Oxford, UK</i> Awarded for valuable contribution to access and outreach at Brasenose |

Older Experience: Outreach

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| May - Oct 2021 | Project SOS <i>Department of Physics, University of Oxford, UK</i> Supervised a group of four Year 10 pupils as they undertook a project examining stereotypes in the workplace and society Advised the students as they chose a research question, collected and analysed data and presented their findings in a report and a presentation | Supervisor |
| 2020 - 2021 | The Access Project Volunteer supporting students from disadvantaged backgrounds Delivered weekly tutorials on academic material Advised and answered questions on further education | Tutor and Mentor |
| 2021, 2020 | Preparing for the Physics Aptitude Test <i>Department of Physics, University of Oxford, UK</i> Delivered an academic course over several months helping sixth form students prepare for the physics admissions test at Oxford Ran tutorials going over example problems and marked practice exams | Tutor |
| Jul 2020 | UNIQ Summer School <i>University of Oxford, UK</i> Guided students through problem sheets and answered academic questions Ran mock interviews | Student Ambassador |
| 2019 - 2021 | Physics Ambassador <i>Department of Physics, University of Oxford, UK</i> Helped delivered a range of outreach events; ran engaging science and academic workshops for primary and secondary school students Trained to deliver an hour-long live-action science show about particle physics for 11-18 year olds (cancelled due to COVID) Filmed videos about studying physics (and philosophy) at Oxford Created booklets of practice questions and solutions to help candidates prepare for the admissions test at Oxford | |
| 2017 - 2021 | Access Volunteer <i>Brasenose College, University of Oxford, UK</i> Worked as an interviews host, providing pastoral support to interviewees Led tours to prospective students throughout the year Worked as an Open Days helper, giving tours and answering questions | |
| 2015, 2016, 2017 | KES Summer School <i>King Edward's School, Birmingham, UK</i> Worked at a week-long summer school aimed at Year 5 pupils Responsible for a form and ran form time; organised and ran sport competitions; marked homework and wrote reports; taught lessons; led a one-hour debating workshop | Teaching Assistant |