Intelligent Earth
UKRI AI Centre for Doctoral Training in AI for the Environment

The CDT Training Programme

30/11/2023

Philip Stier (Physics), Hannah Christensen (Physics), **Laura Stevens (Earth Sciences),**
Louise Slater (Geography), Adrian Thomas (Biology), Yee Whye Teh (Statistics),
Stephen Roberts (Engineering), Andrew Markham (Computer Science)
Sophie Nixey (DTC)

The CDT Training Programme

Goal: train a new generation of quantitative environmental data scientists equipped to make substantial contributions in environmental and data sciences as well as being prepared for a wide range of career paths.

How? An **intrinsically interdisciplinary** training program: each student project will be advised by both an environmental science supervisor and an AI supervisor, plus a non-academic partner advisor.

Teaching model for all courses will be tailored towards:

- training graduate students to become **independent researchers**,

- introducing the AI tools, frameworks and environmental datasets to apply the taught material in **tutorial-based project work**, and

- **interdisciplinary group work** to tackle grand challenges in environmental science of increasing complexity with AI, supported by peer learning.

The programme will be individually tailored to the needs of each student.

The CDT Training Programme

Year 1

- **Core courses** in foundations of AI/ML for environmental students and core courses in environmental science areas for data science students

- **Core skills training** for the full cohort, e.g. programming, version control.

- **Advanced cross-cohort courses** focus on specific areas of AI, applied to grand challenges and datasets in environmental sciences.

- **Research project**: three-month research project supervised by one potential PhD supervisor.

All Years

- **Responsible AI training** will form an intrinsic part of all training courses of the programme

- **Professional skills training** with the Oxford Doctoral Training Centre, including teaching skills training supported by Oxford's Developing Learning and Teaching Programme

- **Annual cross-cohort hackathons** co-organised with the Frontier Development Lab (FDL) and CDT partners and a **cross-cohort CDT conference**

- **Annual two-day CDT conference** will provide opportunities to showcase, network and collaborate

- **Weekly Intelligent Earth seminars** featuring leading national and international speakers will bring together the entire Oxford AI for the Environment community