Connor Watson - Southampton

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Profile

Climate policy focused academic researcher with professional experience. Recent experience in management of large datasets, building and managing multiple air quality and weather sensors, research of UK specific climate resilience and green policy, and building physics. Past experience in pure mathematics, fluid dynamics, and high performance computing.

Experience

MMath Student, Department of Mathematics and Statistics, University of Exeter (2018 - 2022)

- Investigation of coastal shipping air pollution attributable human health effects (BSc thesis).
- Derivation of governing equations of the classical water-wave problem mapped to curvilinear co-ordinates (MMath thesis).

Postgraduate Researcher, Aerodynamics and Flight Mechanics Research Group, University of Southampton (2023 - Present)

- Evaluation of correlations between air quality and thermal comfort, and utilisation of single-shot and auto-regressive LSTM machine learning in prediction of air quality.
- Examination of how machine learning informed by governing equations of fluids be used to improve and optimise low carbon comfort of building design systems using gathered thermal comfort and air quality data.
- Published paper on climate resilience methodology used in Southampton City Council and a research group position paper on citizen-centric artificial intelligence.

Civic Buildings Officer, Southampton City Council (2024 - 2025)

- Completed report on heat and flood climate change resilience on the city of Southampton from November through until the end of February.

Skills

- Utilisation of academic and industry standard programs: Python, R, MatLab, Bash, Visual Basic inc. Excel, LaTeX, Github, Microsoft Office programs and alternatives, Blender, Adobe Photoshop and Lightroom, Microsoft Power BI, GIS.
- Usage of high performance computing servers, namely University of Southampton's *Iridis*.
- Research, hypothesis proposal and examinations.
- Experienced presenter to academics, industry, and non-professionals.
- Data analysis and interpretation.
- Writing for academic papers, professional reports, and public presenting articles.
- Long-term hobbyist experience primarily computer building, metalwork, carpentry, and electronics.

Education

- Exeter University · September 2018 to June 2022 · 2:1 Masters of Mathematics with Honours in Mathematics · Awarded 06/2022
- Southampton University · July 2023 to Present · Postgraduate Researcher