

George Poole

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george-poole.github.io



Fluid dynamics PhD researcher currently based in Cambridge UK seeking postdoctoral employment in quantitative research and/or software development.

Education & Experience

PhD Researcher @ Institute for Energy & Environmental Flows, University of Cambridge 2021–Present

- proposed and investigated novel mathematical models of the fluid dynamics of carbon sequestration
- developed and released Python packages to solve time-dependent equations using the finite element method

Undergraduate Supervisor @ DAMTP, University of Cambridge 2021–2023

- taught Fluid Dynamics and Statistical Physics courses to small groups of final-year undergraduate mathematicians
- responsible for marking work, helping students better understand the course and writing timely reports on their progress

Research & Development Intern @ Dassault Systèmes, Cambridge UK 2020–2021

- completed a 6 month internship working on commercial scientific software for academia and industry
- gained experience in good software development practices for large projects

Summer Research Student @ DAMTP, University of Cambridge 2019

- undertook a funded summer project in the Department of Applied Mathematics & Theoretical Physics to numerically solve and mathematically model fluid flow in porous media
- gained experience in Fortran and OpenMP to run parallelised simulations

Summer Research Student @ Faculty of Biology, University of Manchester 2018

- participated in a Wellcome Trust funded summer research programme to apply mathematics to biological problems
- applied mathematical models to complex systems in an interdisciplinary research topic
- gained experience in using Python to create computational models and process data

BA, MSci Natural Sciences @ University of Cambridge 2016-2020

- ultimately specialised in Theoretical Physics, more specifically quantum condensed matter theory
- achieved a First in each year and received Clare College's Murgoci Prize for Physics

Skills & Interests

- applications of mathematics to problems in industry
- scientific computing with Python and its scientific stack
- high-performance computing with Python and compiled languages
- finite element methods with FEniCS and similar packages
- open-source software development
- technical document preparation with \LaTeX , Quarto and Jupyter Book

Extracurricular

- Clare Boat Club men's vice-captain 2023-2024
- Cambridge University Eton Fives Club social secretary and half-blue 2022
- Clare College Whiston Science Society treasurer 2019
- Clare Cricket Club captain 2018-2019
- self-employed GCSE and A-Level Physics and Mathematics tutor 2015-2016
- fluent French speaker
- keen cyclist, hiker and home cook