Polly-Anne Jeffrey

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RELEVANT EXPERIENCE

University of Leeds — Leeds, UK
Postdoctoral research fellow in Applied Mathematics — 2021 - Present

- My research is in collaboration with the Defence Science and Technology Laboratory (DSTL). I am using computational mathematical modelling and data analysis to study the within-host spread of Anthrax infection. The model will be able to make predictions about the spread and severity of Anthrax infection, and will incorporate different drug treatments.

University of Leeds — Leeds, UK
Tutor in Applied Mathematics — 2019 - 2020

- Throughout my PhD I tutored small groups of undergraduate students in applied mathematics and statistics. This role also involved giving feedback for regular assignments.

Labcorp drug development — Leeds, UK
Biostatistician — 2015 - 2016

- I spent a year out from my undergraduate degree working for Labcorp as a student biostatistician. This role involved programming using the language SAS, to generate tables, figures and listings, as well as performing statistical analysis with clinical data and writing statistical documents. I was also involved with the training of new starters towards the end of my placement.

EDUCATION

University of Leeds — Leeds, UK
Ph.D. in Applied Mathematics — 2017 - 2021

- Thesis title: Mathematical modelling of cellular receptor-ligand dynamics
- Industrial collaboration: AstraZeneca

University of Leeds — Leeds, UK
BSc Mathematics (Industrial): 1st Class Hons — 2013 - 2017

King Edward VI high school — Morpeth, UK
A-levels: Mathematics (A), Chemistry (A), Biology (A) — 2011 - 2013

TECHNICAL SKILLS

- **Languages:** Python, R, SAS, HTML/CSS.

- **Tools:** LaTeX, Git, GitHub, Mathematica.

- **Techniques:** Differential equation modelling, Markov chain modelling, Model simulation, Bayesian inference, Linear regression, ANOVA and post-hoc analyses, Principal component analysis, Data visualisation.

COMMUNICATION SKILLS

- **Scientific writing:** Peer-reviewed publications (see ORCID), PhD thesis, Conference presentations and posters.
- **Outreach:** Developed and delivered outreach activities for school children both at the university and in local schools and colleges.
- **Organisation and leadership:** Organised and ran a multi-disciplinary conference for PhD students.