RICHARD DANIEL, Ph.D.

Analyst/Researcher in Applied Mathematics

richarddaniel@hotmail.co.uk

+44 754 567 1841 rdaniel396

London, W14 9PF, UK RDaniel396

SUMMARY

With a strong background in physics, I excel in critical analysis, technical communication and numerical modelling. I aspire to transition my skills to a career in analysis, consulting, and research, in a business environment.

SKILLS & STRENGTHS

Data & Statistical Analysis | Research | Reporting | Problem-Solving | Methodical | Managerial | Python | Mathematics | SQL | Advanced Excel

EXPERIENCE

Researcher

University of Sheffield 09/2019 – 10/2023

- Undertook scientific research to find new creative and innovative solutions, resulting in three publications.
- Analysed data using statistical methods to forecast and model new solutions to help problem-solve.
- Communicated results persuasively, written and verbal, to a diverse audiences using data visualisation.

`Python` / `Data & Statistical Analysis` / `Research`

Teacher

University of Sheffield 09/2019 – 10/2023

- Communicated complex mathematical processes and fundamental principles to various individuals.
- Taught undergraduate mathematical classes and organised material in preparation for exams.
- Volunteered with GCSE and A-level students from disadvantaged backgrounds, allowing for higher education.

`Communication` / `Mathematics` / `Advanced Excel`

Fire Safety Team Leader

Metropolitan Thames Valley 06/2018 – 09/2019

- Responsible for fire safety compliance for all properties. Managing clients, contractors and finance teams.
- Took compliance from an average of 70% to 100% by designing a new process during the company's merger.
- Oversaw national fire alarm project, requiring detailed automated reports and careful management of finances.

`Reporting` / `Managerial` / `Advanced Excel`

PROJECTS

Publications

Scientific

- `C` and `Python` simulation of gravitational waves, creating mock data that allows a forecast of future statistical constraints.
- Simulated the beginning of the Universe using `Python`, requiring complex mathematical and dynamical system analysis.
- Data visualisation of the early universe, using statistical methods in `Python`, allowing for creative problem-solving.

Voluntary Sustainability

Sustainability

- Organised "Energy Switch" persuading the University of Sheffield to use 100% renewable energy, achieved in 2020.
- Led Green Impact Energy team, to problem-solve and determine new creative innovations, using carbon accounting.

Supervisor

Teaching

- Supervised undergraduate research projects in applied mathematics. Resulting in a successful new PhD researcher.

EDUCATION

Ph.D. in Mathematics and Statistics 09/2019 - 10/2023
The University of Sheffield

Thesis: "The Bounce, The Bang, The Bounds: Models of Modified Gravity"

B.Sc. and M.Sc. in Theoretical Physics 09/2014 - 06/2018
The University of Nottingham

First / Distinction

A-Levels 09/2012 - 09/2014
Andover College

Mathematics, Physics, Further Mathematics, Chemistry

PUBLICATIONS

Forecasts on interacting dark energy with standard sirens
R. Daniel, E. M. Teixeira, N. Frusciante, and C. van de Bruck

Transitioning from a bounce to R^2 inflation
R. Daniel, M. Campbell, C. van de Bruck, and P. Dunsby

Inflation and scale-invariant R^2 gravity
R. Daniel and C. van de Bruck

PERSONAL ACHIEVEMENTS

Competed nationally in power-lifting, representing the University of Nottingham. Highlighting personal dedication, motivation and resilience.