

# Danny Williams

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## EDUCATION

### COMPASS CDT

#### UNIVERSITY OF BRISTOL

Started studying in September 2019

### MMATH MATHEMATICS

#### UNIVERSITY OF EXETER

Graduated with a first in 2019

### A LEVELS

#### IVYBRIDGE COMMUNITY COLLEGE

Maths - A\*

Further Maths AS - A\*

Physics - B

English literature - B

## EXPERIENCE

### UNDERGRADUATE

Mathematical Proofs

Analysis

Statistics

Statistical Modelling

Machine Learning

Computational Non-linear Dynamics

Extreme Value Theory

### POSTGRADUATE

Statistical Computing

Statistical Proofs

Bayesian Modelling

Multivariate Analysis

## SKILLS

### PROGRAMMING

Python • R • MATLAB •  $\text{\LaTeX}$  •

Keras • PyTorch

### PROFESSIONAL

Report Writing • Project Work •

Presenting

### PERSONAL

Teamwork • Critical Thinking •

Analytical • Time Management

## REFERENCES

Available upon request

## STATEMENT

I am currently a first year PhD student on the COMPASS CDT in Bristol, studying computational statistics and data science. During my undergraduate degree and first year at COMPASS, my understanding of machine learning and statistics has increased considerably. I am enthusiastic about using my statistical knowledge to apply and develop machine learning algorithms to various scenarios.

Outside of work, I enjoy weightlifting, tennis and intense one-versus-one sports and games - anything I can focus and improve on.

## RESEARCH

### DOWNSCALING EXTREMES OF PRECIPITATION

#### UNIVERSITY OF EXETER | MASTERS PROJECT 2019

Modelled the relationship between extremes of rainfall and their spatial properties for gridded model output and point-level observations. Used this information to predict rainfall extremes at a high resolution.

SKILLS: R • STATISTICS • GENERALISED ADDITIVE MODELS • EXTREME VALUE THEORY • REPORT WRITING • PRESENTING

### POST-PROCESSING ORDINAL WEATHER FORECASTS

#### UNIVERSITY OF EXETER | SUMMER PLACEMENT 2018

Investigated temporal patterns in the forecasting of total cloud cover - measured discretely and predicted continuously. Developed methodology to detect an underlying signal hidden between observations and forecasts.

SKILLS: BAYESIAN MODELLING • R • JAGS • DATA FORMATTING • DATA ANALYSIS • PRESENTING

### CALCULATING OCEAN HEAT CONTENT

#### READING UNIVERSITY | SUMMER PLACEMENT 2017

Using data for ocean temperature measurements from 1900 to 2015 to accurately map out and plot temperature changes over the last decade, as well as report on the effect of more sparsely spread data, and how to make incomplete data reliable.

SKILLS: PYTHON • DATA ANALYSIS • DATA ENGINEERING • COMPUTATIONAL EFFICIENCY

## EMPLOYMENT

### CUSTOMER SERVICE ASSISTANT | LIBRARIES UNLIMITED

2018 - 2019: • Varied Assignments • IT Systems  
• Customer Service • Warehouse Work

### DELIVERY RIDER | DELIVEROO

2017 - 2018: • Personal Schedule • Physical Fitness  
• Customer Interaction • Time Keeping

### CUSTOMER CONSULTANT | CARPHONE WAREHOUSE

2016 - 2017: • Sales Role • Constant Communication  
• Customer Service • Simplifying Complex Technology