

# Danial Wyn Owen

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## Personal Profile

I am a driven person, currently in the final year of my integrated Masters/PhD at the University of Liverpool. Originally a physical geographer, I am currently studying Data Analysis and Society, exploring sensors data in Smart Cities using Python. During my research, I have undertaken an internship, demonstrated, and completed a teaching lectureship position.

## Employment History

### UNIVERSITY TEACHER IN GEOGRAPHIC DATA SCIENCE | UNIVERSITY OF LIVERPOOL | 09/2021 – 03/2022

- Fixed-term teaching lectureship as module lead for three undergraduate and postgraduate modules in Geographic Data Science.
- Responsible for organizing, communicating, developing, and delivering modules.
- Teaching concepts and the application of Data Science methods using Python on real-world data.
- Piloted a new form of interactive assessment for the students, changed the format of the lectures to increase communication between the students and I, and developed content of existing assignments.
- Academic supervisor for three groups of undergraduate students.

### DATA SCIENCE INTERNSHIP | IDOM | 03/2019 – 04/2019

- A data science internship in Sevilla and Madrid with the multinational company, IDOM.
- Responsible for pre-processing, exploring, and visualizing big telecommunication data using Python.
- Successfully pre-processed the data into a suitable, line protocol format to be inputted into visualization platform, Grafana.
- The internship was an excellent experience of working in industry, solo travel and improving my language skills.

### DEMONSTRATOR | UNIVERSITY OF LIVERPOOL | 09/2018 – 09/2021

- Demonstrating both undergraduate and master's modules at the Geography and Planning department at the University of Liverpool.
- Supported students with use of QGIS, ArcMap, and R to visualize and analyze the spatial distribution of natural phenomena and human dynamics.

## Education

### POSTGRADUATE STUDIES | 2018 – PRESENT

- Data Analytics and Society Integrated MSc and PhD

### UNDERGRADUATE DEGREE | 2015-2018 | UNIVERSITY OF LIVERPOOL

- Physical Geography BSc - 1<sup>st</sup> Class Honors

## **A LEVELS/AS LEVELS/ADVANCED DIPLOMA | 2013-2015 | COLEG MEIRION DWYFOR, PWLLHELI**

- A Level: Mathematics, Geography, Business Studies - BBB
- Advanced Diploma: Welsh Baccalaureate - A\*

## **GCSE | 2008-2013 | YSGOL ARDUDWY, HARLECH**

- 9 GCSEs including English, Science, Mathematics - A-A\*

## **Notable Projects**

### **MSC DISSERTATION | TIME-SERIES CLUSTERING OF FOOTFALL DATA | 09/2020**

- Applying hierarchical time-series clustering algorithm to classify the change in footfall patterns in Melbourne after the implementation of Covid-19 restrictions over a period of three months using Python.

### **FIRST PAPER | VECTOR FIELDS TO VISUALISE HUMAN MOBILITY | PRESENT**

- Visualizing movement of telecommunication interactions in the city of Milan with vector fields. Employing vector fields to address the well documented issues of visualizing large movement data, reducing visual clutter and occlusion.

## **Skills & Abilities**

### **COMPUTATIONAL**

- Competent working with Python, Jupyter Labs, R, QGIS, ArcGIS.
- SQL course on Udemy using Sequel Server Management Studio (SSMS)
- Microsoft: Word, Excel, Power Point

### **COMMUNICATION**

- Public speaking whilst delivering lectures, presenting at conferences, and being a course representative.
- Fluent in Welsh and English and B1 level Spanish

### **LICENSE**

- British Driving License

## **Referees**

### PhD Supervisor

Prof. Daniel Arribas-Bel  
School of Environmental Sciences,  
Roxby Building,  
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### Recent Employer

Prof. Kathy Burrell,  
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