# DR LIAM STUART

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### **ABOUT**

Recently finished a postdoctoral research post and looking to transition to a career in data science and machine learning. Proficiency demonstrated through a self-directed data analysis project published on GitHub.

## **EMPLOYMENT**

# Teacher of Mathematics, ELITE Tuition

2023-Present

• Currently an online mathematics tutor working with A-Level students, aiding them in their studies and furthering their academic development.

## Research Fellow in Mathematics, University of St Andrews

2022-2023

Research was focused on fractal geometry dimension theory, with a focus on hyperbolic geometry and conformal dynamics.

#### **EDUCATION**

# PhD in Mathematics, University of St Andrews

2019-2022

- Invited to give several talks about my research at various seminars.
- Taught multiple tutorial groups and received many positive comments from students about my teaching.

# MMath Mathematics, University of St Andrews

2015-2019

- Honours Average: 18.0 (Graded on a scale of 1-20).
- Appeared on Deans' List for academic excellence every year.

# **SKILLS**

Programming	Python (Matplotlib, NumPy, Pandas, Plotly Dash, PyTorch, Scikit-Learn, Seaborn, TensorFlow),
	R (dplyr, ggplot2).
Machine Learning	Knowledgeable about a large range of machine learning architectures and algorithms.
Other	GitHub, LaTeX , SQL.

#### **SOFTWARE**

## Stock Price Prediction App

 An interactive app for predicting the stock price for several different stocks, built using Plotly Dash and TensorFlow. Data is obtained through web scraping, cleaned using Pandas, and then trained on multiple models built in TensorFlow. User can control what stock they would like to predict, as well as the model architecture and years of data they would like to use in training. Published on GitHub.

## **CERTIFICATIONS**

Machine Learning, Stanford University, Coursera.	2024
Deep Learning Specialisation, DeepLearning.Al, Coursera.	2024
IBM Data Science Professional Certificate, IBM, Coursera.	

#### **PUBLICATIONS**

BAMS	A new perspective on the Sullivan dictionary via Assouad type dimensions and
	spectra (with J. M. Fraser).
Ann. Fenn. Math.	Refined horoball counting and conformal measure for Kleinian group actions (with
	J. M. Fraser).
Geom. Dedicata	The Assouad spectrum of Kleinian limit sets and Patterson-Sullivan measure (with
	J. M. Fraser).