JACOB BRADLEY

LinkedIn jacob-bradley-comp-bio
Address 12/3 Rankin Drive, Newington, Edinburgh, EH9 3DE
Website https://www.maths.ed.ac.uk/~s1505825/   **Email** j.r.j.bradley@sms.ed.ac.uk

I am a PhD student at the University of Edinburgh with a technical background in mathematics, statistical modelling, computational biology/genomics and machine learning. My PhD work centres around applications of machine learning and modern techniques from high-dimensional statistics to genomic medicine.

EDUCATION

Institution/ Course	Key Modules	Grades	Honours
School of Mathematics, University of Edinburgh, PhD Statistics	Thesis Title: "Statistical Learning and Genomic Medicine", High-Dimensional Statistics Causality in Biomedicine	-	CCG Studentship
Corpus Christi College, University of Cambridge: MSc Systems Biology	12 Week Research Project, Data Acquisition and Handling, Modelling and Analysis of Networks, Synthetic and Executable Biology	I	Best Research Project (Systems Biology), Don Hanson Scholar, College Scholarship.
Corpus Christi College, University of Cambridge: BA Mathematics	Statistical Modelling, Mathematical Biology, Quantum Information/Computation, CATAM Programming Coursework	I/II.i	Boorman Scholar, Special Exhibitioner, College Scholarship.

KEY SKILLS

Programming	Python, R, MATLAB, GitHub, HTML + CSS	• Programming Coursework • Computing Officer at CC
Data Analysis	R, Python, SQL	• Statistical Modelling Coursework
Advanced Data Visualisation	R (tidyverse), JavaScript (D3)	• MSc Data Analysis Course
Machine Learning	scikit-learn, tensorflow, keras	• Data Science at Caspian
Computational Biology Research		• Internship at CCG • Undergraduate Research Fellow at Caltech • MSc Systems Biology
High Performance Computing		• Computing cluster use in PhD research
Writing and Communication		• A Level textbook developer with Pearson • Vice-President of Corpus Chrsti College JCR • STIMULUS volunteer in local primary schools

EMPLOYMENT EXPERIENCE

University of Edinburgh   September 2019 - Present

· On top of my research duties, I run workshops for undergraduate and masters level courses and supervise masters students in their research projects.

Caspian Learning   July 2019 - Setpember 2019

· I completed an internship in the R+D team, developing tools for AI-based investigation of financial crime. I worked on weak supervision techniques including data programming and active learning.

Cambridge Cancer Genomics (CCG)   October 2018 - May 2019

· I completed a research internship, using machine learning techniques and comprehensive genomic profiling data via liquid biopsies to predict response to immuno-oncogenic therapy.

Pearson   March 2018- June 2018

· I worked on the development of Pearson's range of A Level Mathematics textbooks.

California Institute of Technology (Caltech)   June 2017 - September 2017

· I conducted an undergraduate research fellowship in the Elowitz Laboratory, developing a simulation toolkit for devlopmental signalling pathways, focussing on modelling biological information processing.

Corpus Christi College, Cambridge (CC)   March 2017 - May 2018

· I was employed as the college's Computing Officer, maintaining and administrating the college's database of student leases and internal elections.

PUBLICATIONS

Dimensionality and Structure in Cancer Genomics: A Statistical Learning Perspective
Jacob Bradley   *September 2020*

· Published by IntechOpen, Chapter 3 of the book "Artificial Intelligence in Oncology Drug Discovery & Development".

VOLUNTEERING

STIMULUS Volunteer Programme   October 2017- June 2018

· I volunteered in two Cambridge primary schools, teaching year 4/5 pupils about coding in Scratch/Python and about online safety.

Corpus Christi JCR (Students' Union)   March 2017 - March 2018

· As vice-president of the students' union, I was responsible for organising Freshers' Week welcome events, student lease allocations, chairing meetings of students and staff, and a yearly budget of over £30,000.

                                                                      March 2016 - March 2017

· As a welfare officer my job was to support the physical, emotional and social wellbeing of students. This included training by a counsellor to offer triage around physical, mental and sexual health.