
JASMINE BURGESS

EDUCATION

STATISTICS AND OPERATIONS RESEARCH MRES / 2024-2025

Statistics and Operations Research with Industry (STOR-i) CDT, Lancaster University

MATHEMATICS MMATH / 2019-2023

Durham University, 1st Class Honours

Including Modules in: Programming (Python), Statistics, Mathematical Modelling, Monte Carlo, Cryptography and Codes, Statistical Mechanics, and Mathematical Biology.

Achieved 78% in my Masters project.

Achieved the top grade in cohort for Galois Theory

A LEVELS: MATHEMATICS (A*), FURTHER MATHEMATICS (A), PHYSICS (A), CREATIVE WRITING (A*)

10 GCSES AT GRADE A* OR EQUIVALENT, INCLUDING GRADE 9 IN MATHS AND ENGLISH LANGUAGE

Oxford Spires Academy

WORK EXPERIENCE

TECHNICAL BUSINESS ANALYST/ ACTURIS

September 2023 – July 2024

- Write, test and use complicated SQL and PL/SQL code to manage a large database, including writing code to fix bugs in the User Interface and add specific data for clients.
- Design new features for the User Interface, considering code, database and web service changes, as well as how users will interact with the App.
- Manage my time on large projects to meet deadlines, collaborating with multiple teams.

TEACHER/ CHESS IN SCHOOLS AND COMMUNITIES

October 2022 – July 2024

- Attend schools or libraries to teach chess to groups of primary school children, being confident and flexible to manage the classroom and adapt to a chaotic environment.
- Explain complicated ideas in an engaging manner, helping some children go from complete beginners to county level players.
- Worked with teachers and teachers' assistants to form a strong team and be consistent with each individual schools' policies and reward/punishment systems.

MARKER/ DURHAM UNIVERSITY MATHEMATICS DEPARTMENT

October 2022 – April 2023

- Gave precise and helpful feedback to second year students, communicating clearly to help correct misunderstanding on assignments.
- Developed rubrics for assignments to ensure that marks were consistent for different students, with feedback linking to the curriculum.
- Viewed approximately 70 submissions per question and highlighted common errors to the lecturer.
- Ensured I remained confident in second year modules, so I could understand different methods and ideas.

PROGRAMME LEAD/ ADVANCED MATHEMATICS SUPPORT PROGRAMME

June 2022 – September 2022

- Worked within a team to lead engaging study days for sixth form students, with the aim of preparing state school students for university entrance exams.
- Answered student questions and marked assignments online between study days, managing my workload to meet deadlines and ensure students had time to respond to feedback.

MATHS TUTOR/ LEVELLING UP

March 2021 – July 2022

- Prepared and gave 90-minute lessons for A Level students from under-represented backgrounds at university, helping build their confidence both in maths and applying to a top university.
- Gave presentations on studying maths at university to a group of 50 students and answered questions.
- Facilitated a good group environment for students to tackle high-level maths problems as a team, and lead reflection discussions at the end of each session.

SUMMER INTERN/ PUBLIC HEALTH ENGLAND

July 2019 – August 2019

- Worked with a team of technicians auditing radon levels, using Python to model the spread of gases.
- Created a risk assessment and strictly followed safety procedures.

INTERESTS AND OTHER EXPERIENCE

- I play on the top board for the first all-female team in the **Four Nations Chess League**, and have been playing chess since I was five; this developed my concentration and problem-solving skills.
- I was the **treasurer** of Durham University Chess Society, with responsibility for raising money, budgeting for equipment, travel costs and entry fees and paying invoices.
- I was involved in the Maths Department's **EDI book club**, which aimed to discuss how mathematical work can and does affect society. I also coordinated a **Durham-based book club**, open to locals and students, focused on discussing LGBT+ literature and building community, and I now attend the Birmingham Book Club.
- I worked with **Young Minds Big Maths**, a program for improving maths teaching in nurseries, discussing with early years teachers how mathematical exploration could be introduced.
- I have worked twice with Sutton Trust to help **lead residential summer schools**, working in a team to run activities and respond swiftly to emerging problems in a fast-paced environment.

- I was invited to work on the Pi Day 2022 and 2024 videos by Matt Parker, a **public maths communicator** and YouTuber. In 2022, we worked in a team to try to calculate pi to 100 digits, adapting our method and problem-solving over the course of a weekend. The video currently has over 424,000 views.
- Throughout my degree, I attended open lectures at Durham University, such as a lecture on the geometry of projective planes behind the game Dobble.