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Experience

2017-Present **Doctoral and Postdoctoral Researcher**, *King's College London*

- Research in pure mathematics with a specialisation in algebraic number theory and arithmetic geometry, culminating in obtaining a doctoral degree. Since graduating I have been continuing in research as a Postdoctoral Research Associate.
- Significant achievements include the resolution, in joint work, of a major conjecture in our field that was unsolved for thirty-three years.
- Authored seven research articles either by myself or with mathematicians from across the world. Four of these articles published in international peer-reviewed journals. A further article undergoing late-stage peer-review at one of the top journals in mathematics. A publication list can be found here.
- Attended, and presented my work at, various international conferences and seminars.
- Reviewed and refereed articles for international peer-reviewed journals.

2016-Present **Teaching Assistant**, *King's College London*

- Taught and lectured undergraduate and graduate students from one-on-one classes to cohorts as large as 200 people.
- Nominated by students for a university-wide 'Outstanding Teaching Prize'.
- Delivered volunteer lectures through the student-run mathematics society on various software packages and technologies such as LaTeX, Python and MatLab.
- Other responsibilities in this role included aiding in the preparation, writing, marking and invigilation of mid and final year exams as head exams invigilator. Managed teams of up to twenty invigilators to ensure smooth running of exams sat by up to 400 students.

2007-Present **Open-source and hobbyist programmer**

- Lead developer of Voodool2C, an open-source macOS kernel-level driver (written in C++) for Intel I2C controllers and associated input devices found on most modern laptops, used by tens of thousands of people each day.
- Experience with Linux and macOS low-latency kernel programming (C/C++), various interpreted object-oriented languages such as Ruby and Python, reverse-engineering of low-level machine code (Assembly), as well as good practices such as automated code documentation and CI/CD via git.

2012-2017 Freelance Web Developer

- Worked with various start-ups on a contractual basis as a full-stack web-developer.
- Ruby on Rails (backend) with (Postgre)SQL, standard front-end technologies (HTML/JS/CSS/etc), strong focus on test and behaviour-driven development (TDD, BDD).

Education

2017-2021 **Doctor of Philosophy in Mathematics**, *King's College London*

Thesis: On modules of Euler systems (link)

2016-2017 Master of Advanced Study in Mathematics (Part III), University of Cambridge

2012-2016 Master of Science in Mathematics, King's College London

Studied courses in pure mathematics, physics, probability and statistics, and financial mathematics

2007-2012 The British School of Kuwait

Personal Details

Nationalities: British. French. Lebanese

Languages Spoken: English (mother tongue), French (mother tongue), Arabic

(conversational)

Interests: Strength sports such as Olympic weightlifting and powerlifting