

CHARLIE DICKENS

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EDUCATION

University of Warwick

PhD Computer Science

October 2016 - Present

Supervisor: Graham Cormode

- Funded under the project “Small Summaries for Big Data”
- Theoretical techniques include: sampling, sketching, dimensionality reduction
- Keen to apply novel techniques to Numerical Linear Algebra, Machine Learning, and Data Analysis problems
- Enrichment Year Student at the Alan Turing Institute, London, September 2017-2018.

University of Birmingham

MSci Mathematics Class I

2012 - 2016

- Thesis title: “*Probabilistic and Algorithmic Aspects of Spectral Graph Theory*”
- Studied various modules spanning Algebra, Analysis, and Combinatorics

Hagley Catholic High School

2005 - 2012

- A levels: Mathematics (A*), Further Mathematics (A), English Literature (A), Physics (A)
- GCSEs: 9A*s and 1A including English, Mathematics, and Science

PUBLICATIONS

Leveraging a Well-conditioned Basis for Robust Dimensionality Reduction

2017

In Submission

with G. Cormode, D.P. Woodruff

AWARDS

British Colloquium for Theoretical Computer Science Speaker Bursary

March 2018

- One of 10 bursaries awarded for PhD attendees to present work on deterministic data summaries

WPCCS Best Presentation (Foundations)

June 2017

- Awarded for best presentation in *Foundations* track for work on Leveraging a Well-conditioned basis

London Mathematical Society Research Bursary

Summer 2015

- Reviewed algorithmic, probabilistic, and spectral techniques
- Worked under supervision of Dr. Nikolaos Fountoulakis

School Prizes

Summer 2012

- Upper School Mathematics (A Level)
- Upper School Electronics (GCSE, retrospectively awarded)
- Catenian Association Prize for Public Examination Performance (A Level)

TECHNICAL STRENGTHS

Computer Languages (Competent)
Tools

MATLAB, Python,
GitHub, Microsoft Office

EMPLOYMENT

The University of Warwick

Spring 2017

- Taught *Mathematics for CSII*
- Planned and delivered tutorials for two groups of roughly 20 students
- Marked weekly assignments

The Football Association

Supply League Referee (Level 4)

*2008 - present
West Midlands Region*

- Plan and arrange fixtures with club and FA officials
- Contact and brief my assistant referees to ensure a good team environment
- Delegate various responsibilities to assistant referees
- Demonstrate leadership before, during and after match-day
- Complete necessary administration before and after the match
- Awarded *Young Referee of the Year, 2014-15* by Stourbridge Referees' Association

CED Property Services Ltd.

Domestic Energy Assessor

*2013 - 2016
West Midlands Region*

- Communicate with clients to visit their house
- Organise an itinerary for a day's work (including travel times and expenses)
- Provide and explain an EPC to the client

Bridging To The Future

Maths Mentor

*Spring 2014
Birmingham*

- Helped pupils with mathematical problems they had during class
- Assisted delivery of lessons alongside main classroom teacher

Waterstones

Bookseller

*2010 - 2011
Merry Hill, Dudley*

- Independently categorised and organised sections of books
- Spoke to customers face-to-face to advise on future purchases

White Mountain Ski

Sales Assistant

*2010 (6 months)
Wolverhampton*

- Advise customers on correct ski equipment for their competency
- Responsible for correctly fitting certain equipment

EXTRACURRICULAR

- Facilitated a group on Cyber Security during May 2017 Turing Data Study Group
- Selected by The FA to referee in an international youth tournament in France (May 2015)
- Stourbridge Golf Club Junior Captain (2011 - 2012)
- Trained *Alpine Ski Leader*
- Chaired a debate on Electoral Reform during Sixth Form at Worcester Cathedral with an MEP, an MP, and campaigners for electoral reform