# William **Kane**

Graduate · Curriculum Vitae

*Wrexham / Liverpool*

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*More details can be found on my online CV at tubestubes.github.io*

## Summary

New graduate with a focus on data analysis, statistics, mathematics, and python. Looking to hit the ground running and start a career in Cheshire. Suited to data analysis roles with routes for progression. My career goal is to take responsibility for data modelling and analysis at a senior or managerial level, using the latest data science techniques, work-flows, and intelligent automated systems. Keen to engage, learn, and work at a fast pace.

## Skills

| | |
|---|---|
| **Mathematics** | Statistics (with Bayesian), Modelling, Optimisation, Numerical Methods, Maple |
| **Python** | Data Science, Spatial Data Science, OOP, Jupyter, Agent-Based Modelling, Machine Learning, Data Mining |
| **Software** | SQL, R/RStudio, Julia, Maple, MATLAB, Microsoft Office, LaTeX, Git/GitHub with Git Bash, Docker, Ubuntu |
| **Professional** | Leadership, Life-long Learning, Team Work, Project Leadership, Communication and Presentation, Time Management, Prioritisation |

## Education

### MSc(Eng) in Risk and Uncertainty

*Distinction*

UNIVERSITY OF LIVERPOOL

*Sept. 2019 - Aug. 2020*

- **Modules include** Modern Management, Geographic Data Science, Data Mining, Monte Carlo, Risk Analysis
- **Research project in** Agent-based modelling of mixed autonomous/human vehicles in a road network
- Other projects include training an artificial neural network to act as a surrogate model in python, and advanced Monte Carlo methods in MATLAB.
- This course built on technical knowledge of Bachelors degree and focused on a deeper understanding of key concepts. I split my focus 50:50 between data science orientated and risk orientated modules, as well as general modules on Advanced Modern Management and Project Planning. The course concluded with a three month research project in which I developed object orientated python code to simulate the effects of driverless cars mixed with normal traffic on traffic flow, and wrote up a detailed analysis of the data I generated.
- The skills developed in this degree built on what I had before while teaching me to work independently with minimal guidance, and to carefully plan and manage my ongoing projects to deliver each one on time without comprising quality. I also gained valuable technical knowledge in data analysis, data science, machine learning, and programming to be used in the future.

### BSc in Mathematics

*2:1*

UNIVERSITY OF LIVERPOOL

*Sept. 2016 - Jun. 2019*

- **Modules include** Statistics, Calculus, Modelling, Quantum Mechanics, Networks, Finance, Game Theory / Economics, Operational Research
- **Group Project** where I lead and coordinated my group to create a report on using Maple for operational research calculations.
- Throughout this course I developed sharp skills in the foundations of mathematics, statistics, problem solving, numerical methods, and scientific computing. I focused on applied modules, always learning how mathematical models can be used on important problems. Managing the high workload matured my skills in time management and self motivation key to success in the workplace.

### A Levels

*A\*AB*

COLEG CAMBRIA YALE

*Sept. 2013 - Jun. 2015*

- **A Levels** Mathematics (A\*), Further Mathematics (A), Physics (A), Chemistry (B)

### GCSEs

DARLAND HIGH SCHOOL

*Sept. 2008 - Jun. 2013*

- **9 GCSEs including** English (A\*), Systems and Control (A), Media Studies (A\*)

# Experience

**Soho Bar** *Liverpool*

Bar Tender *Jun. 2018 - Aug. 2018*

- **Skills developed:** Customer Service, Delivering at Page, Managing a Quality Service, Teamwork
- A fast paced and customer focused job where I developed skills in hospitality which can be transferred to other situations involving solving problems on the fly to provide clients with what they expect.

**KUMON** *Wrexham*

Tuition Assistant *Sept. 2013 - Oct. 2014*

- **Skills developed:** Communication and Presentation, Team Work, Supporting Others
- Tuition provided me an excellent opportunity to work with people and help them learn and develop their skills in maths and English. A satisfying job and one that taught me a lot about dealing with people and how to communicate clearly and affectively.

# Side Projects

### R Shiny Dashboard

Interactive visualisation of the data outputted from my masters' simulation

- **Skills developed:** Interactive visualisation, Data Dashboards, R, R Shiny
- To learn the ropes of R Shiny and creating dashboards, I developed an interative web interface to visualise data from the various simulations I ran while collecting data in for my masters' dissertation.

### Personal Website

Github pages website created with R Markdown

- **Skills developed:** R, R Markdown, Basic Web Development
- I developed a minimalist website to function as an online CV, hosted on Github Pages. I used this to learn the ropes of R Markdown

### Local Business Website

Jekyll website hosted on GitHib Pages

- **Skills developed:** Basic Web Development, R, SEO
- I used Jeykll to create a simple static website for a new local business.

# Achievements

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|---|---|---|---|
| 2013 | **Charitable Work,** Operation Christmas Child | | *Wrexham* |
| 2013 | **Duke of Edinburgh's Award,** Silver | | *Wrexham* |
| 2012 | **First Aid,** Basic qualification | | *Wrexham* |
| 2012 | **Black Belt,** Tae-Kwon-Do | | *Wrexham* |

# References

**Dr Hongbo Ye**

Master's Project Supervisor

- Hongbo.Ye@liverpool.ac.uk

**Professor Ke Chen**

BSc Academic Adviser

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**Professor Scott Ferson**

MSc(Eng) Department head

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