

# Ryan J. Spick

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## PERSONAL OVERVIEW

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Graduating with a First Class Honours in Computer Science and subsequently being awarded a full PhD scholarship for research in Deep Learning and Big Data analytics at the University of Hull, before transferring to the University of York to focus more on graphical applications of Deep Learning. An outgoing researcher who wishes to continue developing technical skills and new approaches while providing meaningful real-world applications. Extensive range of relevant technical ability developed throughout time in academia. Highly motivated and hardworking, consistently looking to better oneself and others. Driven by self learning and the gripping desire for completion.

## EXPERIENCE

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### PhD Researcher - University of York

*September 2018 - Present*

*Supervisors - Dr. James Walker, Prof. Peter Cowling*

Procedural content generation within computer vision, how generative methods can be used to replace or assist areas of game/simulation design. Two papers published on generation of height maps and a death prediction model in the game Dota 2.

### PhD Researcher - University of Hull

*September 2017 - September 2018*

*Supervisors - Dr. James Walker, Dr. Nina Dethlefs, Prof. Ken Hawick*

Applications and exploration of Deep Learning for the use of improving operational efficiency in offshore wind farms with an aim for a more image and visualisation focus. Published methods of applying Convolutional Neural Networks to large scale satellite images to determine sea height.

### Computer Science BSc 1st - University of Hull

*September 2014 - July 2017*

Computer Science Graduate with First Class degree, notable high graded modules such as Data Mining, 3D Graphics and simulation, Advanced Programming and a dissertation module focusing on the creation of an engine from scratch for *The Procedural Generation and Rendering of Large Scale Planets*

### Computational Research - The Digital Centre

*July 2017 - September 2017*

Summer internship with projects aiming at utilising High Performance Computing in order to generate tools for scalable parallelisation in complex agent based models while working closely with a small group of like-minded researchers.

### Computer Science Demonstrator

*September 2017 - September 2018*

Working in large computer lab sessions to assist in student learning and understanding of several modules; Data Mining, Advanced Programming, Programming Paradigms and 3D Graphics.

### A Levels - The King's School Grantham

*2012 - 2014*

## TECHNICAL STRENGTHS

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Broad knowledge and uses of both high and low level programming languages, with combinations of multiple languages employed to exploit different strengths for projects;

Utilising Python for Deep Learning, data analytics and visualisation of large data. Vast use of C# for general purpose software development and networked applications. C++ for larger scale graphical projects, simulations and high performance computing. Advanced techniques developed with the use of GLSL and OpenGL for efficient and niche rendering ability. Experience with Java for mobile application development. Javascript/HTML for web and light weight tasks. Flexibility of multiple operating systems and work environments.