

Curriculum Vitae

Samuel Paul Charles Jakes

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Research Experience

Neural Networks & Software Development / Internship

December 2019 - February 2020, THE UNIVERSITY OF SYDNEY

Supervisor: Prof. Benjamin Eggleton

Using state-of-the-art neural network software for applications in computer vision. The project involved basic app development, basic website development, and all-round assistance in the development of software.

Quantum Computing / Special Studies Program

March 2018 - June 2018, THE UNIVERSITY OF SYDNEY

Supervisor: Prof. Stephen Bartlett

Theoretical research on the behavior of quantum phenomenon, quantum circuits, and the development of a software package for MATLAB that allows for the classical processing of a subclass of quantum circuits.

Developing Memristors / Special Studies Program

August 2017 - November 2017, THE UNIVERSITY OF SYDNEY

Supervisor: Prof. David McKenzie

Experimental research on the Development of a new fundamental circuit part. The project involved first hand collection of experimental data on the performance of circuit parts.

Spectroscopy / Special Studies Program

March 2017 - June 2017, THE UNIVERSITY OF SYDNEY

Experimental research on the viability of using the flashlight and camera on smartphones to perform spectroscopy on milk, in order to determine whether the milk had curdled.

Advanced Physics / Experimental Labs

March 2017 - Present, THE UNIVERSITY OF SYDNEY

Three years worth of experimental labs in physics at the advanced level. The experiments require a high level application of the experimental method, including rigorous logbook keeping, calculation and analysis of experimental error, and report writing.

Advanced Chemistry / Experimental Labs

March 2017 - November 2017, THE UNIVERSITY OF SYDNEY

A full years worth of experimental labs in chemistry at the advanced level. The requirements of these labs are the same as in physics.

Education

Smiths Hill Selective High School

January 2011 - October 2016, WOLLONGONG

I took maths, physics, chemistry, and English to the HSC and Graduated with an ATAR of 98.15

The University of Sydney / Bachelor of Science (Advanced)

February 2017 -Present, CAMPERDOWN SYDNEY

I am double majoring in physics and computer science. Through this I have developed experimental / research experience, while also learning to program in Java, Python, C, C# and MATLAB.

Work Experience / Volunteering

HSC Tutoring / Private Work

November 2016 - December 2017, WOLLONGONG

Tutoring for students in their HSC year for physics, chemistry, advanced maths, extension maths, and 4u maths.

High School Tutoring / Volunteering

January 2016 - November 2016, WOLLONGONG PUBLIC LIBRARY

Free tutoring for refugees, through the SCARF organisation.

Pizza Delivery / Domino's Pizza

November 2016 - March 2017, WOONONA DOMINO'S

Pizza delivery, customer service, washing dishes and other cleaning.

Other Interests

Video Game Development

Making mobile games for android. The games are publicly available for download on the android store.

Environmentalism

I'm passionate about fighting threats posed to the environment, and proudly get involved in rallies / activism wherever I can.

Music

I have played guitar consistently for 11 years, and have recently picked up drums which I play in a band with a few friends.