

# Joseph Wilson

Christchurch, New Zealand

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Soon-to-be master's graduate in mathematics and physics, seeking to apply his skills in industry.

## Skills and Interests

Enthusiastic learner and with strong analytical and technical ability. University summer projects included: (2018) Using numerical methods to reproduce models of the galactic bar and disk with C and PYTHON. (2019) Developing and documenting a workflow for *crystal band structure computations* using CP2K and PYTHON for future use by the department.

- Technologies
- JULIA (data science and general purpose)
  - PYTHON (with NUMPY, SCIPY, SYMPY)
  - MATHEMATICA
  - L<sup>A</sup>T<sub>E</sub>X (scientific typesetting)
  - UNIX systems, BASH, C++
  - Web technologies (HTML-JS-CSS)

I am currently learning French, and in my free time like to play the piano and attend weekly Modern Jive dance classes.

## Education

- 2021-2022 **Master of Science** in mathematical physics, VICTORIA UNIVERSITY OF WELLINGTON.  
“Geometric Algebra for Special and General Relativity” supervised by Prof. Matt Visser.  
**Due to finish 12 March 2022.**
- 2020 **Postgraduate Certificate in Science**, UNIVERSITY OF CANTERBURY.  
Self-directed research project in astronomy “An Overview of the Strong CP Problem and Axion Cosmology” supervised by Dr. Jenni Adams.
- 2017-2019 **Bachelor of Science (Honours)** in mathematical physics, UNIVERSITY OF CANTERBURY.
- Direct entrant into second year, graduating with A+ GPA for all years.
  - Vice-Chancellor's Excellence Award – *to take an additional interest course in bioethics*
  - University of Canterbury Mathematics & Statistics Scholarship – \$5k
  - Madam Tiong Guok Hua Memorial Prize in science – \$3.2k

## Work Experience

- 2021 Tutor in mathematics and lab demonstrator in physics at VUoW
- Communicating technical information clearly, operating and supervising lab equipment
  - Marking student work rapidly and providing personalised feedback to benefit learning
- 2020 Kitchen hand at BISHOP JULIUS HALL and casually at GATHERINGS restaurant.
- Reliability, timeliness and practicality
  - Working in fast-paced environment
- 2019-2020 Private tutor for maths and physics. Tutor, TA and Lab Demonstrator at UoC in physics for all levels.
- Running classes of about 25 students while being engaging and individually attentive
  - Understanding students' individual perspectives in order to teach high-level concepts

## References

Academic and employer references available upon request.