

Kilian Liss

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EDUCATION

UNIVERSITY OF SYDNEY

2020 - 2022

MASTERS OF COMPLEX SYSTEMS - ENGINEERING

Research Assistant - School of Geosciences

UNIVERSITY OF WOLLONGONG

2016 - 2019

BACHELOR OF SCIENCE (PHYSICS) WITH DISTINCTION

Minor in Chinese (Mandarin)

SKILLS

- **Coding Languages** : Python, Matlab, Latex, C#, Mathematica, Java
- **Mathematics** : Multivariate Calculus, Linear Algebra, Statistics
- **Software** : Blender, Unity, Photoshop, DaVinci Resolve, Vensim
- **Theory** : Machine Learning, Network Science, Information Theory, Agent Based Modeling, Chaos, Numerical Physics, 3D graphics

EXPERIENCE

UNIVERSITY OF SYDNEY - SCHOOL OF GEOSCIENCES

2020 - 2022

RESEARCH ASSISTANT - PROCEDURAL TECTONIC PLATES

- Co-author in "Nature Reviews Earth & Environment" article titled "A glimpse into a possible geomorphic future of Tibet"
- Developed original algorithms for simulating the movement of tectonic plates over the course of millions of years whilst maintaining topological features
- Explored machine learning methods to significantly speed up the run time of erosion algorithms
- Developed blender scripts and tools for easy use of my algorithms

ECO-SIGHT

Occasional Projects Since 2019

PROGRAMMER

- Contributed to the filing of a patent by writing numerical code in Matlab for 3D Magnetic field calculations and visualizations for electric current carrying wires
- Soon to be co-inventor of another patent for a new method in prime number factorization inspired by crystallography

AUSTRALIAN INSTITUTE OF INNOVATIVE MATERIALS

Dec 2018 - Jun 2019

RESEARCH ASSISTANT - NANOTECHNOLOGY

- Fabricated permalloy nano-discs for research on magnetic vortices
- Performed magnetic measurements of samples and compared measured data with simulations

EXTRACURRICULAR ACTIVITIES

- Co-founder and secretary of the student social society named More Wise at the University of Wollongong (2018 - 2019)
- Winner of Best Pitch Award with a team of 3 at UOW Pitch X (2018)
- First student to represent the University of Wollongong at the Future Physicist International Summer Camp at USTC China