

# GERARD KENNEDY

Website: <https://kennege.github.io>

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## OVERVIEW

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I am a Masters student with the Australian Centre for Robotic Vision and the Australian National University. My project involves developing novel ways of applying deep learning algorithms to robotic vision applications. I previously completed Bachelors degrees in Engineering and Science at the Australian National University. I intend to write up my Masters thesis in my own time in the first half of 2021. I am currently seeking full-time work and can start at short notice.

## EMPLOYMENT

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**Tutor/Teaching Assistant** 2017 - 2020  
*Australian National University*

Courses: Systems Engineering Design (ENGN2225), Systems Group Project (ENGN4221), Robotics (ENGN4627), Computer Vision (ENGN4528).

**Research Assistant** 2018 - 2019  
*Australian National University*

I assisted in the development of the vision system for an agricultural harvesting robot, and in the development of a novel simultaneous localisation and mapping algorithm.

Required skills: Matlab, Python, C++, BASH, ROS, Ubuntu

**Summer Research Scholar** 2015 - 2016  
*CSIRO, Scientific Computing Section, Canberra*

I developed automated hardware and software testing regimes to be implemented on the CSIRO's high performance computers.

Required skills: BASH, C#, C++, Ubuntu

Publication: <https://conference.ererearch.edu.au/2018/09/hpc-software-image-test/>

## EDUCATION

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**Master of Philosophy** 2019 - Feb 2021 (expected)  
*Australian National University & Australian Centre for Robotic Vision*

My project involves developing novel deep learning algorithms for use in robotic vision applications.

Research areas: Robotics, Computer Vision, Robotic Vision

Required skills: Python, C++, Matlab, Ubuntu, ROS, Pytorch, Deep Learning, Machine Learning

Publications: <https://scholar.google.com/citations?user=YXhev9oAAAAJhl=en>

**Bachelor of Engineering (Honours)** 2013 - 2018  
*Australian National University*

Major in Mechatronic Engineering

First Class Honours

Thesis: [https://kennege.github.io/files/thesis\\_2017.pdf](https://kennege.github.io/files/thesis_2017.pdf)

**Bachelor of Science** 2013 - 2018  
*Australian National University*

Major in Mathematics

Minors in Physics, Earth Science

## AWARDS

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Australian Government Research Training Program Scholarship	2019 - 2021
Postgraduate Research Scholarship (Australian Centre for Robotic Vision)	2019 - 2021
Discovery Translation Fund (Australian National University)	2018
Chancellor's Letter of Commendation (Australian National University)	2017
CSIRO Summer Research Scholarship	2015

## PROJECTS

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<b>Camera-Robot Calibration</b>	2020
<i>Australian Centre for Robotic Vision</i>	
I collaborated with another student to develop and document an open-source software package for calibration of a multi-camera system with a UR5 robotic arm.	
Software & Documentation: <a href="https://kennege.github.io/projects/calibration/">https://kennege.github.io/projects/calibration/</a>	
Required skills: Python, ROS	
<b>Asparagus Harvesting Robot</b>	2018
<i>Australian Centre for Robotic Vision</i>	
I was part of a team that began the development of a robotic platform for harvesting asparagus. My role involved developing a prototype vision system.	
Project Summary: <a href="https://kennege.github.io/projects/asparagus-harvester/">https://kennege.github.io/projects/asparagus-harvester/</a>	
Required skills: C++, Matlab, BASH, Ubuntu	
<b>Control System Developer</b>	2017
<i>ANU Sol Invictus Solar Car Project</i>	
I was a member of the ANU team for its first entry in the World Solar Car Challenge. I designed and arranged manufacture of printed circuit boards (PCBs) to be used in the car.	
PCB Designs: <a href="https://github.com/kennege/solar-car/">https://github.com/kennege/solar-car/</a>	
Required skills: C#, Altium Designer	

## MISC.

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Robotic Vision Summer School Workshop Coordinator	2020
Associate Fellowship of the Higher Education Academy (AFHEA)	2018
CSIRO ONPrime Completion	2018
Fifty50 First Year Mentor	2017
Campus Coordinator for Engineers Australia	2016

## REFERENCES

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### Robert Mahony

Professor, Research School of Engineering, Australian National University  
*Rob is a Chief Investigator for the Australian Centre for Robotic Vision and the head supervisor for my Masters research project.*  
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(w) 6125-8613

### Céline D'Orgeville

Professor, Advanced Instrumentation & Technology Centre, Australian National University  
*Celine was a client for my systems engineering group project. She also supervised a research project that I undertook with the AITC.*  
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