# GERARD KENNEDY

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Github: https://github.com/kennege

#### **OVERVIEW**

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 immediately.

## **EMPLOYMENT**

Tutor 2017 - 2020

Australian National University

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

Research Assistant 2017 - 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.

Languages: Matlab, Python, C++, BASH.

#### Summer Research Scholar

2015 - 2016

CSIRO, IT&M Department, Canberra

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

Languages: BASH, C#, C++.

Publication: https://conference.eresearch.edu.au/2018/09/hpc-software-image-test/

# **EDUCATION**

## 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.

Languages: Python, C++, Matlab

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

## Bachelor of Engineering (Honours)

2013 - 2018

Australian National University

Majors in Mechatronic Engineering, Systems Engineering

First Class Honours

Thesis: https://github.com/kennege/honours\_thesis/blob/master/thesis\_2017.pdf

# Bachelor of Science 2013 - 2018

Australian National University

Major in Mathematics

Minors in Physics, Earth Science

#### **AWARDS**

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**

#### Camera-Robot Calibration

2020

Australian Centre for Robotic Vision

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: https://github.com/kennege/ur5\_multicam\_calib

Language: Python

# **Asparagus Harvesting Robot**

2018

Australian Centre for Robotic Vision

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: https://github.com/kennege/asparagus\_harvester

Languages: C++, Matlab, BASH

# Control System Developer

2017

ANU Sol Invictus Solar Car Project

I was a member of the ANU team for it's first entry in the World Solar Car Challenge. I developed the car's data logger and designed and arranged manufacture of printed circuit boards (PCBs) to be used in the car's steering wheel, throttle control, and battery mount.

PCB Designs: https://github.com/kennege/pcb\_examples Languages/Software packages: C#, Altium Designer

#### MISC.

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

## 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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#### Steve McMahon

Engineering Manager, CSIRO Canberra

Steve was my supervisor for my Summer Research Project in 2015/2016.

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