

# KEJIE LI

4A Ferris Street, Magill, SA 5086  
(+61)421462005 ◇ kejie.li@outlook.com

## EDUCATION

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### Doctor of Philosophy

February 2017 - Present

*University of Adelaide, Australia*

- My PhD topic is object oriented Simultaneous Localization and Mapping (SLAM) with deep learning. The proposed object SLAM incorporates deep learning to reconstruct the environment at the object level so that the SLAM system can not only densely reconstruct the geometry structure of its surrounding like traditional dense SLAM does, but also parse the environment semantically, so that it can understand the environment like our human beings.

### Bachelor of Advanced Computing (Honours)

July 2014 - July 2016

*the Australian National University, Australia*

- First Class Honours
- Thesis: Improved CNN Regression Model for Depth Estimation from a Single Image
- Award: International University Partnership Award, 2014

### Bachelor of Computer Science

September 2012 - July 2014

*Shandong University, China*

- Avg Grade 91
- 2 times First Class National Scholarship, 2012-2014

## WORK EXPERIENCE

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### Research Intern

September 2019 - February 2020

*Facebook Reality Lab*

Publication to be disclosed

### Teaching Assistant

February 2019 - July 2019

*University of Adelaide*

Tutoring for Foundation of Computer Science (FCS). I was responsible for teaching Object Oriented Programming and demonstrating programming in small groups.

### Teaching Assistant

July 2016 - October 2016

*the Australian National University*

Tutoring for COMP6730: Programming for Scientists, a python programming course for students from various disciplines.

### Software Developer

January 2016 - March 2016

*the Australian National University*

In this project, I worked under Dr. David Heslop. We have developed a standalone Bayesian Principal Component Analysis tool in Matlab for geologists to estimate the direction of line to a sequence of demagnetisation data for an individual specimen.

I was supervised by Dr. Norman Warthmann and Dr. Christfried Webers in this project. We tried to design a new data structure to store DNA sequence more efficiently where we applied unsupervised learning framework such as autoencoder to help biologists analyzing the information of DNA.

## **PUBLICATION**

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- **Kejie Li**, Ravi Garg, Ming Cai, Ian Reid, "Optimizable Object Reconstruction from a Single View", BMVC 2019 (oral)
- Mehdi Hosseinzadeh, **Kejie Li**, Yasir Latif, Ian Reid, "Real-time Monocular Object-model Aware Sparse SLAM", ICRA 2019
- **Kejie Li**, Trung Pham, Huangying Zhan, Ian Reid, "Efficient Dense Point Cloud Object Reconstruction using Deformation Vector Fields", ECCV 2018
- Huangying Zhan, Ravi Garg, Chamara Saroj Weerasekera, **Kejie Li**, Harsh Agarwal, Ian Reid, "Unsupervised Learning of Monocular Depth Estimation and Visual Odometry with Deep Feature Reconstruction", CVPR 2018

## **REFERENCES**

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### **Prof. Ian Reid**

University of Adelaide

Email - [ian.reid@adelaide.edu.au](mailto:ian.reid@adelaide.edu.au)

Phone +61 8 8313 2135

### **Prof. Stephen Gould**

the Australian National University

Email - [stephen.gould@anu.edu.au](mailto:stephen.gould@anu.edu.au)

Phone +61 2 6125 8642