Huangying ZHAN
Ph.D Student

Education

02/2017 - Present	**The University of Adelaide**	Adelaide, Australia

Ph.D. Student in Mathematical and Computer Science, supervised by Prof. Ian Reid
Research interest: Deep Learning, Robotic Vision, SLAM

09/2012 - 07/2016	**The Chinese University of Hong Kong**	Hong Kong, China

B.Eng in Electronic Engineering (First Class Honours), Major GPA: 3.8/4.0

07/2013 - 08/2013	**Peking University**	Beijing, China

Summer School, GPA: 89/100

Experience

02/2017 - Present	**Australian Centre for Robotic Vision (ACRV)**	Australia

Ph.D Student
- Research on deep learning and robotic vision

07/2018 - 10/2018	**HoloLens, Microsoft**	Redmond, USA

Research Intern
- Worked on a research project with Surface Reconstruction Team.

08/2016 - 11/2016	**Unmanned System Research Group**	The National University of Singapore

Visiting research student with Prof. Ben M. Chen
- Worked on a landing marker detection project for UAV landing. The project is summarized in here.
- Started a research on a deep learning method for 2D scan matching and loop closure. Resulted in an IROS-2017 paper.

06/2016 - 07/2016	**Dept. of Electronic Engineering**	The Chinese University of Hong Kong

Research assistant with Prof. Xiaogang Wang
- Researched on a deep learning algorithm for a large-scale clothing image classification and retrieval project.

06/2015 - 08/2015	**Faculty of Engineering**	The Chinese University of Hong Kong

Summer research intern with Prof. Chiu Sing, Oliver Choy
- Researched on hardware implementations of convolutional neural networks (CNN). A quantization training strategy is proposed to reduce conversion error for implementing CNN in fixed point devices.

07/2014 - 06/2015	**ON Semiconductor**	Hong Kong, China

Application Engineer Trainee, supervised by Dr. Gang Chen
- Worked on new product developments in terms of application design aid software development, product evaluation, and documentation.

Publications

Self-supervised Learning of Depth Estimation and Surface Normal
Huangying Zhan, Chamara Saroj Weerasekera, Ravi Garg, Ian Reid
IEEE/RAS International Conference on Robotics and Automation (**ICRA-2019**)

Efficient Dense Point Cloud Object Reconstruction Using Deformation Vector Fields
Kejie Li, Trung Pham, **Huangying Zhan**, Ian Reid
European Conference on Computer Vision (**ECCV-2018**)

Unsupervised Learning of Monocular Depth Estimation and Visual Odometry with Deep Feature Reconstruction
Huangying Zhan, Ravi Garg, Chamara Saroj Weerasekera, Kejie Li, Harsh Agarwal, Ian Reid
IEEE Conference on Computer Vision and Pattern Recognition (**CVPR-2018**)

Deep Learning for 2D Scan Matching and Loop Closure
Jiaxin Li*, **Huangying Zhan***, Ben M Chen, Ian Reid, Gim Hee Lee
IEEE/RSJ International Conference on Intelligent Robots and Systems (**IROS-2017**)

Teaching

02/2018 - Present	**Scientific Computing**	The University of Adelaide
	Fundamentals of MATLAB; Using MATLAB to implement varies algorithms.	

Awards

02/2017 - Present	**University of Adelaide International Wildcard Scholarship**	The University of Adelaide
	Award to international students to support their study.	

2012-2016   **Academic Honors and Scholarships at CUHK**   The Chinese University of Hong Kong
- College Head's List (United College; 2016)
- Dean's List (Faculty of Engineering; 2014,2016)
- Professor Charles K. Kao Research Exchange Scholarship (2016)
- HKEIA Project Competition Award, Merit (2016)
- Final-Year Project Poster Award, 3rd Prize (2016)
- Undergraduate Summer Research Internship Scholarship (2015)
- HKSAR Talent Development Scholarship (2014)
- Suga International Holdings Limited Scholarship (2014)
- Simatelex Charitable Foundation Scholarship (2014)
- Tsang Shui Tim Scholarship (2014)
- Electronic Engineering Scholarship (2012)

Skills

Programming Languages	Python, MATLAB, C++, LaTeX
Deep Learning Framework	Caffe, PyTorch
Operation Systems	Linux (Ubuntu), Windows
Languages	Chinese, Cantonese, English, Hokkien