

# Huangying ZHAN

Ph.D Student

## Education

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02/2017 - Present	<b>The University of Adelaide</b> Ph.D. Student in Mathematical and Computer Science, supervised by Prof. Ian Reid Research interest: Deep Learning, Robotic Vision, SLAM	Adelaide, Australia
09/2012 - 07/2016	<b>The Chinese University of Hong Kong</b> B.Eng in Electronic Engineering (First Class Honours), Major GPA: 3.8/4.0	Hong Kong, China
07/2013 - 08/2013	<b>Peking University</b> Summer School, GPA: 89/100	Beijing, China

## Experience

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02/2017 - Present	<b>Australian Centre for Robotic Vision (ACRV)</b> Ph.D Student - Research on deep learning and robotic vision	Australia
08/2016 - 11/2016	<b>Unmanned System Research Group</b> 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.	The National University of Singapore
06/2016 - 07/2016	<b>Dept. of Electronic Engineering</b> Research assistant with Prof. Xiaogang Wang - Researched on a deep learning algorithm for a large-scale clothing image classification and retrieval project.	The Chinese University of Hong Kong
06/2015 - 08/2015	<b>Faculty of Engineering</b> 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.	The Chinese University of Hong Kong
07/2014 - 06/2015	<b>ON Semiconductor</b> 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.	Hong Kong, China

## Publications

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### **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

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

## Awards

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

12/2016      **HKEIA Project Competition Award (Merit)**      The Hong Kong Electronic Industries Association  
To recognize and reward students with outstanding projects which demonstrate excellence in technology and innovation. See result here.

04/2016      **Final-Year Project Poster Award (3rd Prize)**      Dept. of Electronic Engineering, CUHK  
Project title: ClothingID for Clothing Image Classification and Retrieval. See result here.

04/2016      **Professor Charles K. Kao Research Exchange Scholarship**      Faculty of Engineering, CUHK  
Offer to students who have excellent academic performance and research potential. Recipients are allowed to participate in a research project at designated overseas universities.

07/2015      **Undergraduate Summer Research Internship Scholarship**      Faculty of Engineering, CUHK  
Offer to students who successfully apply and complete a research project in the Faculty of Engineering, CUHK

07/2014      **HKSAR Talent Development Scholarship**      Hong Kong Education Bureau  
To benefit students with both outstanding academic performance and achievements and talents in other non-academic fields

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); Suga International Holdings Limited Scholarship (2014); Simatelex Charitable Foundation Scholarship (2014); Tsang Shui Tim Scholarship (2014); Electronic Engineering Scholarship (2012)

## Skills

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