

Huangying ZHAN

Ph.D Student

Education

02/2017 - Present	University of Adelaide, Australian Centre for Robotic Vision (ACRV) Adelaide, Australia Ph.D. Student in Mathematical and Computer Science, supervised by Prof. Ian Reid Research interest: Deep Learning (Self-supervised learning), Robotic Vision
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

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. Code . - Researched on a deep learning method for 2D scan matching and loop closure.
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 a quantization training strategy to reduce conversion error when implement CNNs 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.

Professional Activities

02/2018 - present	University Tutoring The University of Adelaide Introduction to MATLAB and Excel: Fundamentals of MATLAB and Excel Scientific Computing: Use MATLAB to implement various algorithms.
2018 - present	Reviewer: CVPR; ICCV; AAAI; RAL; ICRA; IROS; TMM

Publications

Visual Odometry Revisited: What Should Be Learnt?

Huangying Zhan, Chamara Saroj Weerasekera, Jiawang Bian, Ian Reid
arxiv preprint (Submission under review) (2019)

Unsupervised Scale-consistent Depth and Ego-motion Learning from Monocular Video

Jia-Wang Bian, Zhichao Li, Naiyan Wang, **Huangying Zhan**, Chunhua Shen, Ming-Ming Cheng, Ian Reid
Thirty-third Conference on Neural Information Processing Systems (NeurIPS) (NeurIPS-2019)

Camera Relocalization by Exploiting Multi-View Constraints for Scene Coordinates Regression

Ming Cai, **Huangying Zhan**, Chamara Saroj Weerasekera, Kejie Li, Ian Reid
Proceedings of the IEEE International Conference on Computer Vision Workshops (2nd Workshop on Deep Learning for Visual SLAM) (ICCVW-2019)

Self-supervised Learning for Single View Depth and Surface Normal Estimation

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

Huangying Zhan*, Jiaxin Li*, Ben M Chen, Ian Reid, Gim Hee Lee
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS-2017)

Skills

Programming Languages Python, MATLAB, \LaTeX

Deep Learning Framework Caffe, PyTorch

Operation Systems Linux (Ubuntu), Windows

Languages Chinese, Cantonese, English, Hokkien