

# Ziqiang Zheng

Email: zhengziqiang1@gmail.com

Phone: 15984283116

GitHub: github.com/zhengziqiang

## EDUCATION

---

Bachelor degree in **Electronic Engineering**

Qingdao, Shandong

College of Information Science and Engineering, Ocean University of China (**985/211**).

2015.09–2019.06

- GPA: 3.21/4.0; Rank: 10/57.
- Final year research thesis project: One-shot image-to-image translation (supervised by **Haiyong Zheng** and **Zhibin Yu**), final rank: **A**.
- Research interest: computer vision, machine learning, biomedical image analysis.

## RESEARCH EXPERIENCE

---

**Research Assistant**

Chengdu, Sichuan

Research assistant supervised by **Yang Yang** of Center for Future Media of UESTC.

2020.10–present

- Deepfake generation and detection.
- Few-shot rumor detection.

**UISEE Research Engineer**

Shanghai

Research engineer supervised by **Jianbo Shi** of Upenn.

2019.09–2020.10

- Autonomous driving at adverse conditions: promote the performance of **Localization**, **Semantic segmentation** and **Object detection**. [Presentation](#).
- **VSLAM** and **3D reconstruction**: 10% improvement of localization precision on ORB-SLAM2. 3D point cloud reconstruction based on **Colmap** and **pseudo-lidar** generation.
- **Unsupervised image retrieval**: adopt contrastive learning to extract domain-agnostic representations.

**UISEE Internship**

Nanjing, Jiangsu

Research internship supervised by **Jianbo Shi** of Upenn.

2019.05–2019.08

- Property Tunable Image Manipulation with Self-Generated Supervision.

**NAIST Internship** (NARA Institute of Science and Technology)

Nara, Japan

Visiting student supervised by **Yang Wu** of **Robotics Vision International Lab**.

2018.09–2018.11

- Asymmetric image encryption and object reshaping.

**Research Assistant**

Qingdao, Shandong

An undergraduate research assistant at VISION at Ocean University of China.

2016.06–2019.04

- Brain tumor segmentation at MICCAI competition.
- Photo-to-caricature, Image deblur, Underwater image synthesis.
- Image steganography and asymmetric image encryption.
- Online Judge evaluation system.

## PUBLICATIONS

---

- **Z. Zheng**, Z. Yu, W. Yang, H. Zheng, B. Zheng, M. Lee. Generative Adversarial Network with Multi-Branch Discriminator for Cross-Species Image-to-Image Translation. *Neural Networks*, Vol.141, pp355-371, 2021.

- Z. Wang, D. Zhou, **Z. Zheng**. Direct Sparse Stereo Visual-Inertial Global Odometry. Accepted, International Conference on Robotics and Automation (ICRA), 2021.
- **Z. Zheng**, Z. Yu, H. Zheng, Y. Yang, H. Shen. One-Shot Image-to-Image Translation via Part-Global Learning with a Multi-adversarial Framework. IEEE Transaction on Multimedia (TMM), DOI: 10.1109/TMM.2021.3053775, 2021.
- **Z. Zheng**, Y. Wu, X. Han, J. Shi. ForkGAN: Seeing into rainy night. European Conference on Computer Vision (ECCV 2020), 2020. (**Oral Paper**) [Code](#).
- F. Yang, X. Chang, C. Dang, **Z. Zheng**, S. Sakti, S. Nakamura, Y. Wu. ReMOTS: Self-Supervised Refining Multi-Object Tracking and Segmentation. BMTT Workshop of 2020 Conference on Computer Vision and Pattern Recognition (CVPRW 2020), pp1-4, 2020.
- **Z. Zheng**, H. Zheng, Z. Yu, Z. Gu, B. Zheng. Unpaired Photo-to-Caricature Translation on Faces in the Wild. Neurocomputing, Vol.355, pp71-81, 2019. [Code](#).
- C. Wang, H. Zheng, Z. Yu, **Z. Zheng**, B. Zheng, N. Wang. Discriminative Region Proposal Adversarial Networks for High-Quality Image-to-Image Translation. European Conference on Computer Vision (ECCV 2018), pp770-785, 2018. [Code](#).

## MANUSCRIPTS

---

- H. Liu, **Z. Zheng**, Z. Yu. Semantic Structure Guided Image Free-painting via Self-supervision. Under review, ACM Multimedia (ACM MM), 2021.
- **Z. Zheng\***, H. Ren\*, W. Yang, X. Xu, H. Lu, Y. Yang, H. Shen. Fully Unsupervised Domain-agnostic Image Retrieval. Under review, IEEE International Conference on Computer Vision (ICCV), 2021.
- **Z. Zheng**, Y. Hu, Y. Bin, X. Xu, Y. Yang, H. Shen. Component Aware Image Steganography via Adversarial Global-and-Part Checking. Major revision, IEEE Transactions on Neural Networks and Learning Systems (TNNLS). [Code](#).
- **Z. Zheng\***, Y. Wu\*, Z. Yu, H. Zheng, Y. Yang. T. Kanade. ReshapeGAN: Object Reshaping by Providing A Single Reference Image. <https://arxiv.org/abs/1905.06514>. [Code](#).

\* denotes **equal contribution**.

## SCHOLARSHIPS AND PRIZES

---

- |   |      |
|---|------|
| • AEON Scholarship Award  | 2018 |
| • JASSO internship scholarship  | 2018 |
| • Future Cup College AI challenge image algorithm group (9th of 273 in national area) | 2018 |
| • Scholarship Award for Scientific and Technological Innovation                       | 2017 |
| • Silver medal of Kaggle competition (91/2293, 3.97%), <a href="#">Website</a>        | 2017 |
| • Qingdao hacker marathon, Best Newcomer Award (1/150)                                | 2017 |
| • Tiantai Scholarship Award   | 2016 |
| • Third Class Scholarship Award   | 2016 |
| • Third Class Scholarship Award of National Chinese Physics Olympiad                  | 2014 |

## SKILLS

---

- **Programming:** Python, C/C++, JAVA, MATLAB, LaTeX, Bash, Docker and Linux
- **DL framework:** Caffe, TensorFlow, Pytorch and Keras
- **English:** GRE 326+4; IELTS 6.0; TOEFL 91

## HOBBIES

---

- **Sports:** Basketball, Swimming and Tennis
- **Cooking**
- **Cycling and Mountain Hiking**