Zhenjun Zhao

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Education

2019.8 – now   **The Chinese University of Hong Kong**   **Hong Kong SAR**

PhD at Department of Mechanical and Automation Engineering

- Research interests include robust pose estimation, feature detection/description/matching and visual localization in challenging environments for drones and vehicles.

2012.9 – 2015.4   **Nanjing University of Aeronautics and Astronautics**   **Nanjing, CHN**

Master at College of Automation Engineering

- Master of Science: Navigation, Guidance and Control granted in April 2015.
- GPA: 3.76/4.00; Rank: 2/38.

2008.9 – 2012.6   **Nanjing University of Aeronautics and Astronautics**   **Nanjing, CHN**

- Bachelor of Engineering: Automation Engineering granted in June 2012.
- GPA: 3.70/4.00; Rank: 6/155.

Internship Experience

2020.6 – 2020.11   **Orbbec Technologies**   **Shenzhen, CHN**

3D Vision Department

- Research on visual-inertial odometry initialization.
- Develop light-weight visual-inertial odometry initialization and optimization in mobile devices.

2021.3 – 2022.12   **Peng Cheng Laboratory**   **Shenzhen, CHN**

Mathematics and Theory Department

- Research on pose estimation and visual localization in underwater environments.
- Research on local feature extraction in underwater environments.

Professional Experience

2018.11 – 2019.7   **The Chinese University of Hong Kong**   **Hong Kong SAR**

Department of Mechanical and Automation Engineering

- Research on visual-inertial odometry for unmanned aerial vehicle.
- Integrated PX4 and MSF to build a loosely-coupled visual-inertial odometry for unmanned aerial vehicle.

2015.4-2016.6　**Huawei Technologies**　　　　　　　　　　　　　　　　　　**Hangzhou, CHN**

Software Engineer, the Security Gateway Development Division

- Develop and maintain virtual system, intelligent routing, mail filtering and north direction in Huawei's first visualized software firewall (VFW).
- Develop and maintain virtual machine migration and policy optimization in Huawei's visualized network security product (NGFW).
- Lead the project of Huawei's first firewall simulation tool targeting at corporate users, trainees and examinees.

Awards

PhD Scholarship, CUHK, 2019-2023

Huawei Annual Research Director Award (top 2 at Hangzhou Branch), Huawei, 2016

Graduate Prize Fellowship, NUAA, 2012-2015

Undergraduate Academic Scholarship, NUAA, 2008-2012

Publications:

Zhenjun Zhao and Ben M. Chen, Benchmark for Initialization of VIO, *Chinese Control Conference (CCC)*, 2023.

Junjie Wen, Jinqiang Cui, **Zhenjun Zhao**, Ruixin Yan, Zhi Gao, Lihua Dou, Ben M. Chen, SyreaNet: A Physically Guided Underwater Image Enhancement Framework Integrating Synthetic and Real Images, *International Conference on Robotics and Automation (ICRA)*, 2023.

Haoang Li, Ji Zhao, Jean-Charles Bazin, Pyojin Kim, Kyungdon Joo, **Zhenjun Zhao**, Yun-Hui, Liu, Hong Kong World: Leveraging Structural Regularity for Line-based SLAM, *Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 2023.

Zhenjun Zhao, Yu Zhai, Ben M. Chen, Peidong Liu, BALF: Simple and Efficient Blur Aware Local Feature Detector, *arXiv preprint arXiv:2211.14731* (2022).

Zhenjun Zhao, Zhi Gao, Ben M. Chen, Pose Graph Based Multi-View Registration, *Conference on Decision and Control (CDC)*, 2023 (Under review).