Jeff XING

+8617810356641 • 1299332389@qq.com

Professional Field

- **Camera ISP Architecture & Algo:** ISP/AIISP, IP Algo Design, IQ Control Algo (3A/HDR/Color/TM & etc), Algo SW Architecture
- **3D Vision**: Depth Camera, 3D Sensing/Reconstruction, SLAM

Work Experience

SiG, Intel **2020.04 - now**

Sensior Computer Vision Algorithm Engineer, full-time

- Lead planing R&D works of new FLexible AIISP for AMR, Automotive & CE products
  - Design & develop new full flow ISP simulation & development platform for ISP kernel algo / control algo / adaptor layer / IQ evaluation
  - Lead R&D team for developing ISP kernel and corresponding tuning/calibration algo, plan roadmap of pipeline design & kernel design, review teamate's kernel design, also mainly contribute on color/enhancement/geometry warp/...
  - R&D AIISP based on heterogeneous computing architecture for many premium laptops (lenovo/dell/hp/huawei & etc) based intel ISP core and new FLexible AIISP
  - Innovate & operation of image quality control algorithms (3A/HDR TM/Shading/...) for Intel ISP on millions intel-inside CE products
  - Preresearch new AIISP architectures for both human and machine vision
- 3D vision new features R&D works
  - R&D new on-chip self calibration (one of 3 main features) for of Realsense@ (a widely used stereo camera for 3D sensing), enable stereo camera to have high accuracy even after long time usage
  - Refactor all other existing on-chip calibration algorithms for Realsense@ based on intel new ISP chip
  - Design realtime 3D reconstruction architecture among chip & host for Realsense SDK
  - Preresearch: new WFOV 3D sensing designs based on multi-WFOV camera systems, AMR simulation platform based on 3DGS & data of stereo camera (comparable with lidar solution)
  - R&D 3D based 360 surround view system for Intel automative solutions

SoC, National University of Singapore **2019.06 - 2020.01**

Research Assistant, part-time

- Research on deep learning based surrogate modeling and simulation, deep learning based image processing, 3 Conference papers published
- Tutorial Lecturer for NUS CS3243 Artificial Intelligence course

IT Flex, Intel **2018.06 - 2018.12**

Research Intern

- Research on semantic segmentation and deep learning acceleration framework

EE, Shanghai Jiao Tong University **2016.07-2018.12**

Research Associate, full-time

- Theoretical research on the application of reinforcement learning, stochastic geometry, and convex optimization in information networks, 2 top conference papers published & 1 China patent granted

Education

Master of Computing, GPA-4.3/5.0 **National University of Singapore, 2019.01-2020.01**

Bachelor of EE, GPA-3.7/4.0（Top 5%） **Beihang University, 2012.09-2016.06**

Second major in **applied mathematics**

Publications & Patents

- Adaptive technology for reducing 3A algorithm computation complexity, Hongjiang ZHENG, Yu Xia, Yuanyuan WANG, Jeff XING, Ilya Sister, U.S. Patent Application No. 18/345,593.
- Building Extraction from Google Earth Images, **Jeff**, Zhang Ruixi, Remmy Zen, Dewa Made Sri Arsa, Ismail Khalil, Stéphane Bressan. *Proceedings of ACM International Conference on Information Integration and Web-based Applications & Services*. **iiWAS 2019.**
- Microbiological Water Quality Test Results Extraction from Mobile Photographs, **Jeff**, Zhang Ruixi, Remmy Zen, Ngurah Agus Sanjaya ER, Laure Sioné, Ismail Khalil, Stéphane Bressan. *Proceedings of ACM International Conference on Information Integration and Web-based Applications & Services*. **iiWAS 2019.**
- **Temporal-spatial request aggregation for cache-enabled wireless multicasting networks**, **Jeff**, Ying Cui, Vincent Lau., *Proceedings of IEEE Global Communications Conference*. **Globecom 2017.**
- **Surrogate Modelling and Simulation with Neural Networks**, Zhang Ruixi, Remmy Zen, **Jeff**, Dewa Made Sri Arsa, Abhishek Saha, Stéphane Bressan. *Proceedings of 24th Pacific Asia Knowledge Discovery and Data Mining*. **PAKDD 2020**
- **Trusted content delivery in large-scale SIC-enabled wireless networks**, Ying Cui, Dongdong Jiang, **Jeff**, Jemin Lee. *Proceedings of IEEE 18th International Workshop on Signal Processing Advances in Wireless Communications*. **SPAWC 2017.**