Xuyang BAI

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Education

Hong Kong University of Science and Technology   *Hong Kong, China*

Ph.D. candidate in Computer Science and Engineering   *Sept.2018-Present*

- **Advisor:** Prof. Chiew-Lan Tai
- **Research Area:** Point Cloud Registration; LiDAR Perception;

Beijing Normal University   *Beijing, China*

B.S. in Electronic Information Science and Technology   *Sept.2014-Jul.2018*

- **Cumulative GPA**: 3.66/4, **Major GPA**: 3.82/4; **Language:** TOEFL 103

Publications

- **TransFusion: Robust LiDAR-Camera Fusion for 3D Object Detection with Transformers, CVPR2022**
  Xuyang Bai, Zeyu Hu, Xinge Zhu, Qingqiu Huang, Yilun Chen, Hongbo Fu, Chiew-Lan Tai.
- **VMNet: Voxel-Mesh Network for Geodesic-Aware 3D Semantic Segmentation, ICCV2021 Oral**
  Zeyu Hu, **Xuyang Bai**, Jiaxiang Shang, Runze Zhang, Jiayu Dong, Xin Wang, Guangyuan Sun, Hongbo Fu, Chiew-Lan Tai.
- **SGMNet: Learning to Matching Features with Seeded Graph Matching Network, ICCV2021.**
  Hongkai Chen**,** Zixin Luo, Jiahui Zhang, Lei Zhou, **Xuyang Bai**, Zeyu Hu, Chiew-Lan Tai, Long Quan.
- **PointDSC: Robust Point Cloud Registration using Deep Spatial Consistency, CVPR2021.**
  Xuyang Bai, Zixin Luo, Lei Zhou, Hongkai Chen, Lei Li, Zeyu Hu, Hongbo Fu, Chiew-Lan Tai.
- **JSENet: Joint Semantic Segmentation and Edge Detection Network for 3D Point Clouds, ECCV2020**
  Zeyu Hu, Mingmin Zhen, **Xuyang Bai**, Hongbo Fu, Chiew-Lan Tai.
- **D3Feat: Joint Learning of Dense Detection and Description of 3D Local Features, CVPR2020 Oral.**
  Xuyang Bai, Zixin Luo, Lei Zhou, Hongbo Fu, Long Quan, Chiew-Lan Tai.
- **ASLFeat: Learning Local Features of Accurate Shape and Localization, CVPR2020.**
  Zixin Luo, Lei Zhou, **Xuyang Bai**, Hongkai Chen, Jiahui Zhang, Yao yao, Shiwei Li, Tian Fang, Long Quan.

Experience

Research Intern, Huawei Intelligent Automotive Solution BU   *Mar.2021-Jan.2022*

- Develop and maintain the PyTorch codebase for 3D LiDAR and Radar perception.
- Research on multi-modality 3D perception, achieve the state-of-the-art 3D detection performance on nuScenes and Waymo, achieve the 1st place in the leaderboard of the nuScenes tracking challenge.

Research Intern, Megvii (Face++) Research Shanghai   *Sept.2020-Feb.2021*

- Research on 3D feature matching and point cloud registration with low overlap.

Teaching Assistant, HKUST   *Feb.2019-Feb.2020*

- COMP4411: Computer Graphics, Spring 2019
- COMP5411: Advanced Computer Graphics, Fall 2019

Skills

Programming   Python, C/C++

Libraries   PyTorch, TensorFlow, Open3D, OpenCV