JIAZE LI

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SKILLS

- **Programming**: Python, C/C++, Rust (learning)
- **Tools**: Git, Docker, Pytorch, ONNX, OpenCV, ROS, Eigen, Ceres
- **Languages**: Chinese, English: IELTS 6.5

EDUCATION

Heidelberg University   **Heidelberg, Germany**
M.Sc. in Scientific Computing   Apr 2024 – Present

Tongji University   **Shanghai, China**
B.Eng. in Data Science and Big Data Technology   Sep 2018 – Jul 2022
- **GPA**: 87.69 / 100.00
- **Courses**: Data Structures and Algorithm Design, Machine Learning, Parallel Programming, Computer Vision
- **Thesis**: Parking Lot Localization System Based on Visual Inertial Odometry (VIO) and Visual Localization
- **Activities**: Association of Magic Lover (Club)

WORK EXPERIENCE

Qiyuan Lab   **Beijing, China**
Algorithm Engineer   Aug 2022 – Mar 2024
- Semantic Visual Localization: Reduce map storage by using semantic maps like OpenStreetMap and DEM for visual Localization;
- SE(2) Equivariant Visual Localization: Development of image matching algorithms robust to image rotation and scale changes for visual localization on UAV platforms at different heights and orientations;
- LRF-VIO: State estimation using a single-point laser rangefinder, camera, and IMU to address scale degradation of the VIO.

Software Development Center, Bank of Communications   **Shanghai, China**
Intern at the Credit Risk Department   Jun 2021 – Jul 2021
- Participated in the construction of the intelligent demand allocation system;
- Involving crawlers and machine learning.

HONORS AND AWARDS

The Second-class Prize in the Undergraduate Group, China Undergraduate Mathematical Contest in Modelling, Shanghai Division   **Shanghai, China**
Oct 2021

RESEARCH & PUBLICATIONS

Visual Inertial SLAM with Deep Learning-enabled Loop Closure for Challenging Scenes
Published on *The 6th CAA International Conference on Vehicular Control and Intelligence*   Oct 2021

PROJECTS

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Tongji University   Nov 2021 – Apr 2022
- Loosely coupled backend for OpenVINS, which uses NetVLAD for loop detection, SuperPoint and SuperGlue for relocalization, and Ceres for pose graph optimisation;
- Running in real-time on mobile GPUs, it effectively improves loop detection and relocalization accuracy in poor lighting conditions.