

JIAZE LI

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SKILLS

- **Programming:** Python, C/C++, Rust (learning)
- **Tools:** Git, Docker, Pytorch, ROS
- **Languages:** Chinese, English

EDUCATION

Heidelberg University

M.Sc. in Scientific Computing

Heidelberg, Germany

Apr 2024 – Present

- **GPA:** 1.06 / 1.0 ↓
- **Courses:** Numerical Linear Algebra, Machine Learning Essentials, Computer Vision, Dynamical Systems Theory

Tongji University

B.Eng. in Data Science and Big Data Technology

Shanghai, China

Sep 2018 – Jul 2022

- **GPA:** 4.38 / 5.0 ↑
- **Courses:** Advanced Programming Language, Data Structures and Algorithm Design, Parallel Programming
- **Thesis:** Localization System Based on Visual Inertial Odometry (VIO) and Visual Localization
- **Activities:** Association of Magic Lover (Club)

WORK EXPERIENCE

Qiyuan Lab

Algorithm Engineer

Beijing, China

Aug 2022 – Mar 2024

- Semantic Visual Localization: Reduce map storage by using semantic maps like OpenStreetMap and DEM for visual Localization;
- SE(2) Equivariant Algorithms: 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

Intern at the Credit Risk Department

Shanghai, China

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;
- 100+ stars on GitHub.