Ding Yang

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EDUCATION

Cornell University Aug 2023 – Present
Master of Engineering in Electrical and Computer Engineering Ithaca, NY, United States
Courses: Database System, Algorithm Analysis, Digital Microcontroller, Embedded Operating System

Tsinghua University Aug 2019 – Jun 2023
Bachelor of Engineering in Automation Beijing, China
Courses: Operating Systems, Data Structure, Computer Networks, Artificial Intelligence, Automatic Control

SKILLS

Languages: C · C++ · Python · Java · Rust · Matlab
Frameworks: Django · ROS · Arduino · Apache Spark · Tensorflow · Pytorch

WORK EXPERIENCE

WeRide · Software Engineer | Planning and Control Team Jul 2024 – Present
San Jose, CA, United States

- Integrate third party navigation app and standard definition map in global planner to provide better navigation ability. Build navigator benchemark set to maintain system stability when optimizing algorithm.
- Improve safety and consistency in high level decision module including local route generator and selector.

ArXiv · Software Engineer Intern | Cloud Service Team Sept 2023 – May 2024
Ithaca, NY, United States

- Participated in the maintainance and improvement of arXiv database in the Google cloud platform.
- Built a robust tex parser that extract key informations like affiliated institutions from tex source files, then generated relationship structures and visualization graphs with these information.

Airwallex · Software Engineer Intern | Risk Platform Jun – Sept 2022
Shanghai, China

- Assessed transaction risks by building machine learning platform and robust data pipelines.
- Developed a python library named Vivqu based on Apache Spark and AWS Deequ to provide metric verification, visualization, defect analysis for big data with beautiful UI design.
- Integrated the powerful tool for data scientists into Kubeflow machine learning workflows to help machine learning engineers get alert before defected data entering models. Available on PyPI: pypi.org/project/vivqu

PROJECTS

Multi-UAV Collaborative Scene Reconstruction Sept 2022 – Aug 2023
Tsinghua University

- Constructed a four-rotor uav (Unmanned Aerial Vehicle) platform with stereo camera, Intel NUC and IMU. Employed ego-planner algorithm for path planning and scene reconstruction. Improved the algorithm to support RGB Map reconstruction and multi-uav SLAM collaboration and tested the system in real world.
- Deployed the system in real-world complicated and no-GPS environment to carry out hazard detection efficiently.

Information Sharing Website with Authentication Jul – Aug 2023
Tsinghua University

- Developed a website based on Django to share graduate application information within the university, which supports login check and register authentication through school mailbox. Now over 400 students registered.
- Generated the main content by MkDocs, a fast static site generator. The web server process was deployed on Gunicorn, a Python WSGI server, and the reverse proxy and static content was provided by Apache Web Server.

Distributed Cloud Disk System on Embedded Device Sept – Nov 2022
Tsinghua University

- Developed a distributed cloud disk system on several Raspberry Pi 4. The system supports connecting multiple devices under different LANs by running WireGuard on a server with a public IP. Every operation record will be synchronized among all deveices, while files will only be fetched and delivered when requested.
- Automatic disconnect reconnection is supported, no need to reset manually.