Ding Yang

🏠 Ithaca, NY | 📞 (607) 379-2612 | Github | Linkedin | 🌐 Blog | ✉ dy297@cornell.edu

EDUCATION

Cornell University   Aug 2023 – Present
Master of Engineering in Electrical and Computer Engineering   Ithaca, NY, United States
Relevant Coursework: Digital System Design with Microcontrollers, Embedded Operating System,
Activities: Particiapted in arXiv's paper relationship database contruction and GCP deployment.

Tsinghua University   Aug 2019 – Jun 2023
Bachelor of Engineering in Automation   Beijing, China
Relevant Coursework: Digital Electronics, Signals and Systems, Computer Networks, Automatic Control
Student Organization: Leader of contest department in Student Science and Technology Association
Honors: Excellence Award for Social Activities · First Prize of National Olympiad in Informatics in Provinces

SKILLS

Languages & Tools: C · C++ · Python · Rust | Git · CMake · Docker
Frameworks: RaspberryPi · Arduino · STM32 · ROS · SLAM · Tensorflow · Pytorch

INTERNSHIP

Software Engineer Intern · Airwallex   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. Now 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.

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.

3D Bin Packing Simulator for Reinforcement Learning Algorithm Test   Sept 2021 – Feb 2022
Tsinghua University
- Developed a simulation environment in Python, which provides the interface for researchers to apply different packing strategies and get the feedback instantly. Now open sourced in GitHub: yang-d19/Packing-3D-RL
- Tested several Reinforcement Learning based space utilization strategies in this simulator and improved them.

ACTIVITIES

Team Leader · Intelligent Car Design Competition   Aug 2020 - Oct 2020
Tsinghua University
- Build an intelligent car from scratch with STM32, infrared detector, electric motor, gyroscope, zigbee module etc, which supports receiving instructions from a controller or from referee machine.
- Participated with the car in the competition that aims to find way through random generated mazes and complete assigned tasks, and got into the final eight.

Lecturer · Science and Technology Camp for Primary and Secondary School   Jul – Aug 2020
Rugao Science and Technology Association   Rugao, Jiangsu, China
- Taught basic programming and computer structure knowledge to students as a volunteer lecturer.