Ding Yang

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EDUCATION

Cornell University Aug 2023 – Present
Master of Engineering in Electrical and Computer Engineering Ithaca, NY, United States
Relevant Courses: Database System, Algorithm Analysis, Digital Microcontroller, Embedded Operating System
Activities: Particiapted in a group project to rewrite arXiv's code base and re-home the services to google cloud (GCP)

Tsinghua University Aug 2019 – Jun 2023
Bachelor of Engineering in Automation Beijing, China
Relevant Courses: Operating Systems, Data Structure, Computer Networks, Artificial Intelligence, 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: C · C++ · Python · SQL · Java · Rust
Frameworks: Node.js · Django · Apache Spark · Tensorflow · ROS · RaspberryPi
Tools & Services: Git · CMake · Docker · WSL · VSCode · AWS · Jupyter Notebook

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

Software Engineer Intern · ByteDance Aug – Aug 2021
Beijing, China
- Constructed an Operator-Performance dictionary in a group of 4 members through collaboration, which combined performance test data and operators of different neural network models. Employed machine learning models like SVM to fit the existed data and predict performance of new models.
- Helped engineers effectively bypass neural network models that are too complex to run on mobile devices without running exhaustive tests, thus increased efficiency by more than 90%.

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.
- 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.
- Deployed the project on AWS EC2 with domain name: dagrad.site, which has more than 1000 page views now.

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 Algorithm Testing Sept 2021 – Feb 2022
Tsinghua University
- Developed a simulator in Python, which provides the interface for researchers to test various packing strategies. Now open sourced on GitHub: yang-d19/Packing-3D-RL