

# Ding Yang

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## EDUCATION

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

**Tsinghua University** Aug 2019 – Jun 2023  
**Bachelor of Engineering in Automation** Beijing, China  
*Relevant Coursework:* Operating Systems, Data Structure, Computer Networks, Artificial Intelligence  
*Student Organization:* Leader of contest department in Student Science and Technology Association  
*Honors and Awards:* Excellence Award for Social Activities at Tsinghua University · First Prize of National Olympiad in Informatics in Provinces

## SKILLS

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**Languages:** C · C++ · Python · SQL · Java · Rust  
**Frameworks:** Node.js · Django · Apache Spark · Tensorflow · Pytorch  
**Tools & Services:** Git · CMake · Docker · WSL · VSCode · AWS · Jupyter Notebook

## INTERNSHIP

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**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](https://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

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**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 Unicorn, 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](https://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](https://github.com/yang-d19/Packing-3D-RL)

## ACTIVITIES

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**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. Helped the students get familiar with Python language syntax and spurred their interest in computer science.