




Yuchen Liu

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SKILLS SET

Programming languages: Python(6 yoe), Golang(2 yoe), C++, Java, C, Bash

Infrastructures and Tools Jenkins, AWS CDK, Container, Linux, Postman, LDAP, NFS, VCenter

Others: Git, MySql, Redis, Latex, PyTorch, React, Groovy, Ginkgo framework, JIRA

PROFESSIONAL EXPERIENCE

MemVerge, Inc

Software Engineer

May. 2023 - Now

Milpitas, CA

- Maintained the integrity and quality of a cloud service product, supported on **AWS cloud** and **GCP**, by diagnosing and reporting software issues, managing **10 release cycles** in a year.
- Designed and implemented 2 regression test frameworks in **Python** and **Golang**, integrating with 3 **cloud CDKs**, product **Restful APIs** utility libraries, **container** images and machine learning libraries like **Tensorflow** and **PyTorch**.
- Developed comprehensive test plans and lead cross-functional test cases for feature, performance, and end-to-end system tests in **Python**, **Golang**, **Bash**. Execute across 4 cloud vendors, such as **AWS cloud**, and 50 **on-premise** servers.
- Designed and deployed 3 major products **CI/CD** pipelines utilizing **Jenkins**, **Groovy** scripts, **GitHub**, **containers**.
- **Mentored** an intern, **Collaborated** across teams to uphold high-quality standards of products.

Meta Platforms, Inc(Facebook) - Digital Commerce Platform

Software Engineer Intern

Jun. 2022 - Sept. 2022

Menlo Park, CA

- Redesigned and developed payout settlement algorithm, reconciling daily transactions discrepancy of **\$80000** and resolving **tens of thousands of failures** over the year. Integrated **Python** and **MySQL** handlers into **C++** codebase.
- Developed algorithms to categorize transaction discrepancies across 3 platforms (Facebook, Google/Apple). Utilized **Python** for data processing and exported aggregate outcomes to 3 **Relational** databases.
- Gathered compelling evidence for potential financial irregularities, highlighting potential user fraud in the past 2 years.
- Facilitated immediate detection of significant financial inconsistencies that could arise from fraud or **system flaws**.
- Authored 2 **design documents** and conducted intern presentations, disseminating insights to the team.

Neusoft Group

Software Development Intern

Apr. 2019 - Sept. 2019

Dalian, China

- Led a team of 4 in coding and constructing a smart home **Internet of Things** management system from physical to application layer.
- Compiled on a follower computer to collect data from sensors at home, realized communication between follower computer and personal computer with **ZigBee** technology. Ran **Assembly language** code in **IAR**.
- Formulated a user-friendly desktop UI to display information with **Qt** and control household appliances with **C++** handlers, extending functionality to web page and WeChat applets with **HTML**, **CSS** and **JavaScript**.

EDUCATION

University of California, Los Angeles (UCLA)

Master of Science in Computer Science, GPA: **3.60/4**

Mar. 2023

Los Angeles, CA

- Coursework: Software Engineering, Operating System, Machine Learning Algorithms, Large-scale Machine Learning, Data Mining, Quantum Programming, Advanced Computer Architecture, Algorithms

Dalian University of Technology

Bachelor of Electronic Information Engineering, GPA: **3.86/4**

Jun. 2020

Dalian, China

- Coursework: Probability and Statistics, Complex Variable Function, Information Theory, Principles of Communication

COURSE PROJECTS

CS Master Capstone Project

CNN Compression Based on Collaborative Compression Method

Sept. 2022 - Mar. 2023

- Using **PyTorch**, pruned channels of the pre-trained **ResNet-56** to desired ratio in the guide of Collaborative Compression, fine-tuned the model for 100 epochs, loaded the model and evaluated on **CIFAR-10** data set.
- Analysed the compression ratios of 27 convolutional layers, pruned only every 3 layers, fine-tuned variations of compressed ResNet-56 and tested the differences of test accuracy after pruning each 3 layers.
- Discussed pros and cons of collaborative compression strategies and proposed various pruning approaches.

Quantum Programming in Cirq

Professor J. Palsberg, UCLA CS238

Jan. 2022 - Mar. 2022

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- Implemented famous quantum algorithms, Shor's and QAOA, with Google's **Python** library, **cirq**.
- Wrote a basic **OpenQASM** file parser to reconstruct quantum circuits in **cirq**.
- Ran **cirq** quantum circuit on **IBM** quantum machine via translating **cirq** into **OpenQASM**.