

Archy Yang

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EDUCATION

Hong Kong University of Science and Technology

Master of Science in Information Technology

Hong Kong

Anticipated Graduation July 2023

University of Minnesota, Twin Cities

Bachelor of Arts in Computer Science, GPA: 3.95/4.00

Minneapolis, USA

May 2020

EXPERIENCE

Research & Teaching Assistant

Southern University of Science and Technology

Oct. 2021 – Aug. 2022

Shenzhen, China

- Developed a web crawler with Python, Scrapy, and MongoDB to collect data in open-source projects. Conducted a research study on how code reviewers choose the pull request(PR) to be merged for issues that have several PRs.
- Worked as a teaching assistant for CS 304: Software Engineering, teaching a weekly lab session.

Software Engineer

Huawei Technologies Co., Ltd.

Jan. 2021 – Oct. 2021

Shanghai, China

- Developed modular software for a telecommunication system. Refactored existing C/C++ code, improving memory access speed and reducing the size of executable files by 30%.
- Developed a code generation tool that transforms a domain-specific language into C++ code.

Web Development Intern

Definer.Inc

July 2019 – Sep. 2019

Minneapolis, USA

- Collaborated with team to develop new features on a web application and implemented end-to-end test suites.
- Technologies: React, Redux, Express.js, MongoDB, AWS

PROJECTS

Video Platform | *Spring Boot, React*

- Built a web application [github.com/ziyuen/VideoPlatformBackend] where users can publish and watch videos.
- Designed & Developed both frontend and backend of the application to support uploading large files and user registration with email verification. Configure the app's build environment with Docker Compose.

Bustub | *Database Systems, C++*

- Bustub is a relational database that serves as CMU 15-445's term project and supports query execution, transactions, and write-ahead logging. Wrote the buffer pool manager with clock replacement policy, disk-based hash table, hash join, and aggregations implementations. Updated write-ahead logging system to support crash recovery, group commit and checkpoints.

ShardKV | *Distributed Systems, GoLang*

- ShardKV is a distributed key/value storage system that serves as MIT 6.824's term project and supports sharding key-value pairs over a set of replica groups. Wrote the replicated state machine protocol—Raft, shard controller, and sharded key-value server implementations to support fault-tolerance, linearizability, configurability, and data migration among replica groups.

TECHICAL SKILLS

Languages: Java, C/C++, GoLang, Javascript, Python

Frameworks: Spring, React, Node.js, Scrapy

Database: MySQL, MongoDB, Redis

Developer Tools: Git, Docker, Maven, CMake, GDB, Linux

LANGUAGE SKILLS

Cantonese, Putonghua, English