

Yu-Chen CHENG

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EDUCATION

Shanghai Jiao Tong University

M.Eng. in Software Engineering

Shanghai, China

Sep. 2019 – Mar. 2022 (Expected)

Shanghai Jiao Tong University

B.Eng. in Software Engineering

Shanghai, China

Sep. 2015 – Jun. 2019

PUBLICATIONS

- [1] **Yuchen Cheng**, Chunghsuan Wu, Yanqiang Liu, Rui Ren, Hong Xu, Bin Yang, and Zhengwei Qi. 2020. *OPS: Optimized Shuffle Management System for Apache Spark*. In 49th International Conference on Parallel Processing – ICPP (ICPP '20). (CCF-B)

EXPERIENCE

Ant Group

Site Reliability Engineer Intern

Shanghai, China

Jun. 2021 – Sep. 2021

- **Identity Provider Connector**. Leading the development of the identity provider connecting to the internal identity and access management system.
- **Federation Observability Platform**. Participating the design and development of the internal multi-clusters observability platform.

The Linux Foundation

Mentee of LFX Mentorship by The Linux Foundation

Remote

Feb. 2021 – May. 2021

- **volcano-sh/volcano**. Volcano is a Kubernetes native batch scheduling system for compute-intensive workloads. My work includes building an efficient testing framework based on Kubernetes and importing unit tests and E2E tests to cover more classical scenarios.

JD.com

Software Development Engineer Intern

Shanghai, China

Jun. 2018 – Sep. 2018

- **JingZao**. Rewrite module JingZao with React Native and introduce several sections in Objective-C.

PROJECTS

CaseCloud: A Cloud-Native Electronic Platform for Bankruptcy Process Management

May. 2019 – Jan. 2021

- A cloud native electronic platform for bankruptcy process management, with a trillion renminbi-level claims processing.
- Responsible for the management of development process and build an efficient GitOps pipeline with Kubernetes and Tekton.
- Design and implement the user interface with TypeScript and React, and manage the dataflow with Redux.
- Build a message broker with Apache Kafka on Kubernetes using Strimzi, and implement a gRPC-based message center.

OPS: Optimized Shuffle Management System for Apache Spark

Sep. 2019 – Feb. 2020

- A distributed computing shuffle management system based on Spark, taking over and optimizing the shuffle phase of Spark.
- *Early-merge* intermediate data to mitigate intensive disk I/O, *early-schedule* based on partition pages, and *early-shuffle* intermediate data stored in shared memory.
- Optimize the overhead of shuffle by nearly 50%, and improve end-to-end completion time by nearly 30% on average in the test cases of HiBench.

SERVICE

Shanghai Jiao Tong University

Teaching Assistant

Shanghai, China

Autumn 2018, Spring 2019, Autumn 2019, and Summer 2020

Dongyue Web Studio, Shanghai Jiao Tong University

Leader of iOS Team

Shanghai, China

Dec. 2016 – Dec. 2019

PROGRAMMING SKILLS

Languages: Go, TypeScript, JavaScript, Java, Python, C++

Tools and Frameworks: React, Kubernetes

HONORS AND AWARDS

The Second Prize in Taiwan Student Scholarship

Dec. 2018, Mar. 2021 and Oct. 2021

The Third Prize in Taiwan Student Scholarship

Dec. 2017

MISCELLANEOUS

GitHub: <https://github.com/rudeigerc>

LinkedIn: <https://www.linkedin.com/in/rudeigerc/>

Selected Open Source Contributions: Member of **Tekton** and **Tensorchord**. `tektoncd/cli`, `tektoncd/triggers`, `tektoncd/dashboard`, `strimzi/strimzi-kafka-operator`, `volcano-sh/volcano`, `tensorchord/envd`

Last modified: August 16, 2022