

Junzhe (Owen) XIA

ppfish.45@gmail.com | (+852) 93471513 | (+86) 15773740095 | <https://github.com/ppfish45>

EDUCATION

The Hong Kong University of Science and Technology

Hong Kong, China

BSc in Computer Science & Mathematics (Computer Science Track)

Sep 2017 - Dec 2021 (Expected)

- **CGA:** 4.067/4.30 | **COMP GPA:** 4.142/4.30 | **MATH GPA:** 4.036/4.30
- **Scholarships & Awards:** Dean's List for All Semesters; HKUST Admission Scholarship Fund (HKD 70,000); HKSAR Government Scholarship (HKD 80,000 per year)

Yali High School

Changsha, China

High School Diploma in Science

Sep 2014 - Jun 2017

- **JEE Test Ranking in Hunan Province:** Top 0.14%

AWARDS

- 2019 ICPC Asia East Continent League Final *Gold Medal, 14/~380 (2019)*
- 2019 ICPC Seoul Regional Contest *5th Place (2019)*
- 2019 Credit Suisse CodeIT Coding Challenge *1st Place over Hong Kong & Singapore (2019)*
- 2019 HKUST Local Programming Contest *1st Place (2019)*
- 2018 ICPC Hong Kong Programming Contest *2nd Place (2019)*
- 2018 ICPC Asia East Continent League Final *Silver Medal (2018)*
- 2018 ICPC Yokohama Regional Contest *15th Place, Top 25% (2018)*
- China National Olympiad in Informatics Winter Camp *Gold Medal (2016)*
- 10th Asia and Pacific Informatics Olympiad *Silver Medal (2016)*
- China National Olympiad in Informatics *Bronze Medal (2016)*
- China National Olympiad in Informatics in Hunan Province *First Prize (2015)*

PUBLICATIONS

- Chengliang Zhang, Suyi Li, **Junzhe Xia**, Wei Wang, Feng Yan, Yang Liu "BatchCrypt: Efficient Homomorphic Encryption for Cross-Silo Federated Learning," in the Proceedings of USENIX Annual Technical Conference (ATC'20), Boston, MA, July 2020.

PROFESSIONAL EXPERIENCE

Alibaba Cloud, Alibaba

Hang Zhou, China

Platform Developer

Jun 2020 – Jan 2021 (July excl.)

- Designed a pipeline to reclaim idle-but-allocated memory on nodes in the cluster to release the resource pressure and accommodate more jobs on a fixed number of physical resources. Initiated and developed *Autopilot* project for autonomous resource control on a single node, which is now running on ~ nodes and % of memory is saved in average.
- Initiated and developed *ASI-Datahub*. It manages multiple instances to aggregate and store cluster monitoring data from different sources, generates data insights, and provides unified endpoints for multiple usages such as data visualization and monitor panel.

Securities Division, Goldman Sachs

Hong Kong, China

Engineering Analyst

Jul 2020 – Aug 2020

- Analyzed code structure of an existing workflow of the GS auto-quoter, and applied tracing on the workflow.
- Extracted insights and summarized proposals to boost the performance of the GS auto-quoter.

Youtu Lab, Tencent

Shen Zhen, China

System Designer & Developer

Jun 2019 – Aug 2019

- Refactored Facebook FAISS Approximate Nearest Neighbor library (HNSW part) and improved algorithm speed to 5x faster.
- Developed an elastic search system based on improved HNSW from scratch, which is going to be applied as an important infrastructure of Tencent's short video products such as Weishi (微视). The system is written in Golang and C++, with Kubernetes.

Information Technology Services Center, HKUST

Hong Kong, China

System Designer & Main Developer

Sep 2018 – Jan 2019

- Designed, developed, and maintained HKUST Blockcerts System under the supervision of Professor CHEN Qifeng, which is the core backend system that for official electronic documents generation. The system is written in Python.
- With this system, all degree diplomas and award certification letters of HKUST are available in electronic format since 2019.

LEADERSHIP

Mainland Student & Scholar Society Badminton Club, HKUST

Hong Kong, China

President

Sep 2018 – May 2019

- Administered HKU & HKUST & CUHK Badminton League and liaised between school teams.
- Scheduled at least 5 hours of weekly practices and campus-wide badminton contests for around 300 members.

SKILLS & INTERESTS

Languages	Mandarin (Native), English (Proficient, TOEFL iBT: 106)
Skills	Algorithm (Proficient), C++ (Proficient, > 100k lines of code), Python (Proficient), Golang (Proficient)
Interests	Music Production (Own a personal music album; Top 6 in HKUST MSSSUG Singing Contest), Piano (Grade 10), Guitar, Badminton (Medal Prize in HKUST MSSS Badminton Championship), Cooking, Photographing