ZHENGYU CHEN

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WORK EXPERIENCE

Amazon - Software Engineer   *Beijing, China   2022.02 - 2023.03*

- Constructed the hook function for **subscribing data change from AWS AppConfig**. Decoupled services from configurations and **resolved data inconsistency** by migrating data to AWS AppConfig.
- Designed intermediate service to access **Redis**. Integrated authentication for both **AWS** and **on-premise** services. Developed unified interfaces, shortening the duration of onboarding new data types by 3/4.
- Delivered 9+ full CI/CD services based on **AWS Lambda/SQS/CDK**, using **C++**, **Java**, and **TypeScript**.

Tencent - Software Engineer   *Guangdong, China   2020.01 - 2022.02*

- Designed monitoring system on **Prometheus** for 5000+ hosts. Constructed the process for pushing data by batch to **Pushgateway**. Extended Pushgateway to cluster, **resolving single point of failure** issue.
- Constructed the auto-scaling pipeline for pods on **Kubernetes** by training time series models using **LSTM** and predicting the number of online users. Reached 87.31% of accuracy.
- Optimized data structures by replacing frequently allocated memories with **cached data** and **pointers**. Reduced memory usage by 20%.
- **Mentored interns**, all of who get return offers. Collaborated with PMs/Ops/engineers and delivered 50+ features with no bugs, using **C++**, **Java**, and **Python**.

EDUCATION

The University of Melbourne   *Melbourne, Australia   2018.07 - 2019.12*
M.S. in Information Technology

East China Normal University   *Shanghai, China   2013.09 - 2017.06*
B.S. in Software Engineering

PROJECTS

LeetCode Archiver - Personal Open-source Project   *2018.11 - 2019.01*

- Designed and implemented the process of **crawling submissions** on LeetCode and storing data in NoSQL databases. Obtained **CSRF token** and maintain the session.
- Gain 200+ stars on GitHub.

Tech Share Website   *2018.12 - Current*

- Share technologies including **Python virtual machine and coroutine**, **consistent hashing**, **message queue (Kafka)** etc.

SKILLS

- AWS Certified Solution Architect - Associate
- Tools: MySQL, Redis, Kafka (Experienced), Linux Compiling, Debugging by Clang, GDB, Valgrind (Skilled)
- Programming Languages: **C++/Java (3 YoE)**, Python/TypeScript(1 YoE)
- Languages: Mandarin (Native), English (Professional)