Xu Xiong

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1010 W University Ave, Urbana, IL, 61801

Education

University of Illinois Urbana-Champaign

Master of Engineering in Electrical & Computer Engineering — Expected Dec. 2022

Wuhan University, School of Computer Science

Bachelor of Engineering in Computer Science **GPA:** 3.66 / 4.00 (89 / 100) — Jun. 2021

- Honors: Scholarship & Outstanding Student Award(Sept. 2019/2020)

University of California, Berkeley | Visiting Student in EECS — Jan. 2020 - Mar. 2020

SKILLS

- **Programming:** C/C++, Python, Java, C#, SQL, Swift, HTML/CSS, JavaScript, Rust, Haskell
- **Tools & Frameworks:** Git, Shell, Linux, Docker, CMake, Hadoop, PyTorch, Django

INTERNSHIP & RELEVANT EXPERIENCE

Uber Technologies, Inc — Jun. 2022 - August. 2022 (Expected)

Software Engineer Intern, Search Platform Team(Java) — Sunnyvale, CA

- Built a QPS analysis tool by setting up a **Flink** job that read from **Kafka** and uses M3 as Sink then visualizes the data through Grafana, to estimate QPS distribution difference during re-sharding.

Kuaishou Technology Co., Ltd(Kwai) — Mar. 2021 - July. 2021

Software Engineer Intern, Search Engine Team(C++) — Beijing, China

- Built prefix tree(**Trie**) service, the search engine request the new service through **gRpc/ProtoBuf** to obtain the suggestion results of entries, improved service restart time from 20 minutes to several minutes
- The new prefix tree service cluster could take **200k QPS** (100 nodes) with **99.99**% availability.
- Built **Docker** service, combined with **Hadoop**, to optimize the update time of search suggestion entries;
- Add features to search results, provide search functionality to new services from other department
- Built **Grafana** server monitoring dashboard for search engine service

National University of Singapore Summer Workshop — Jul. 2019 - Aug. 2019

Visiting Student, School of Computing — Singapore

- Built a WALL-E-object-classification-robot on **Arduino** and **Raspberry Pi** that detects and classifies objects and automatically navigates (Project homepage)
- Engineered an intelligent mobile platform and designed a web panel in **Bottle** (Python web framework) and **Bootstrap** that includes camera streaming, autopilot, and manual control
- Established communication between the computer and Raspberry Pi with **MQTT**

Project Highlights

Distributed Transactions System — UIUC, Aug. 2021 - Dec. 2021

- Implemented timestamp based **concurrency control**, transactions that read and write to distributed objects while ensuring full ACID properties. A separate coordinator server for coordinating the transactions.
- Used **RMI (remote method invocation)** and the **Pyro** framework to allow our clients to access methods and object a remote node has.