

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: 3.76 / 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

Kuaishou Technology Co., Ltd(Kwai)

Mar. 2021 - July. 2021

SDE Intern, Search Engine Group(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.

The Pac-Man project

Berkeley, Jan. 2020 - Mar. 2020

- Applied depth-first search, breadth-first search, and **A* search** on Pac-Man to find the shortest path
- Implemented model-based and model-free **reinforcement learning** to help Pac-Man run away from ghosts

Reminiscence: A Website of Memory

Wuhan University, Oct. 2017

- Built a website that allows users to log in and post about their daily lives using **Django & Bootstrap**
- Won **First Prize** in the Wuhan University Web Design Competition