

Xiao Xia

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Educations

University of California, San Diego #GHC 2022 in-person #Tapia

Sept 2021 - Mar 2023

- M.S. in Computer Engineering, GPA 3.97/4.0

Fudan University

Sept 2016 - Jun 2020

- B.Eng. in Microelectronics

Technical Skills

- **Programming Languages:** C, Python, C++, Java, Golang, JavaScript, TypeScript
- **Computer Skills:** React, SQL, MongoDB, TVM, Linux, Docker, Spring, MATLAB, Verilog, Mission Planner, PyTorch, PostgreSQL, OpenAPI, Kubernetes, Garden, LXD

Experience

Tesla Inc, Software Development Engineer Intern

Jun 2022 - Aug 2022

Product: Tesla CSSP (Cloud Self-Service Portal)

- Developed seven front-end web modules and pages written in **React**, which include the modules of add/delete extra disks in the instance creation page and disk management pages.
- Implemented eight back-end APIs in **Golang**, which include publishing and receiving jobs from **RabbitMQ**, querying and persisting data into the **PostgreSQL** database, and managing virtual machines on the **LXD** cluster.
- Sharded the *instance_disk* **PostgreSQL** table with many duplicate recordings into *project_disk*, *instance_disk*, and *instance_node* tables to decouple the database operations and reduce the server load by about 5%.
- Independently developed and deployed the disk management system, which **57,000** employees of Tesla will use.

Unity Technology, Software Development Engineer Intern

May 2021 - Aug 2021

Product: Unity Distribution Portal: <https://distribute.dashboard.unity.com/>

- Developed front-end web modules written in **React** to help create the game distribution plan, which will benefit the game developers to publish their games more manageably to stores with about **one billion+** mobile gamers.
- Developed back-end **GraphQL APIs** in **Golang** to help game developers publish their games to the Samsung Galaxy Store and Huawei store and get the published result from the store using the callback APIs.
- Integrated the UDP website with the APIs provided by OneTrust Cookie Compliance.
- Upgraded the Support Form by integrating the Zendesk Support Form into the website.

Amazon Web Service, Software Development Engineer Intern

Jun 2020 - May 2021

Product: MXNet: <https://github.com/apache/incubator-mxnet> TVM: <https://github.com/apache/tvm>

- Developed **Cython** and Ctype **FFI** (Foreign Function Interface) for **MXNet** Ops (Operators).
- Implemented dozens of Meta Ops, complemented their test cases with **TVM**, and developed several Meta type functions for inferring the type and shape of Ops.
- Developed Meta **IR Passes** to bring the Bring Your Own Codegen (BYOC) feature into Meta, making the compiler more scalable for self-defined languages.
- Implemented **BERT** Model Module and **ResNet** Model using the Ops provided by Meta and benchmarked these deep learning models to improve the functionality of Meta.

Projects

Photovoltaic Station Optimization System, Fudan University

Jan 2019 - Jun 2020

- Designed and built a PV station monitoring system collaborating with China Telecom using **NB (narrow band)** distributed sensors to collect electrical data from every **distributed embedding system**.
- Built a PV plane clean system using the massive load of data collected by the monitoring system, which will be distributed to about 17200 square kilometer commercial PV stations and bring about 7% more power generation.

Awards

- 2018 Intel Cup Undergraduate Electronic Design Contest - Embedded System Design Invitational Contest 3rd place
- 2018 Fudan Ascendas Cup (1st place)