

WENHE LI

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Github: <https://github.com/WenheLI> | Portfolio: <https://portfolio.steins.live>

EDUCATION

Cornell Tech, New York, NY

2021 Aug-May 2023

Jacobs Technion-Cornell Dual Master of Science Degrees- Connective Media Concentration

Merit Scholarship

New York University Shanghai, Shanghai, China

2016 Aug-May 2020

Bachelor of Science in Computer Science with Honors | Major GPA: 3.8

Bachelor of Science in Interactive Media Arts | Major GPA: 3.82

Dean's List & University Honors Scholar & Computer Science Honors Degree

TECHNICAL SKILLS

Coding Language:

JavaScript/TypeScript, C/C++, Python, Java, Kotlin, Dart, SQL, Rust

Software Engineering Tools:

React, Koa, TailwindCSS, MongoDB, AWS Lambda/Neptune/DynamoDB, Spring Boot

Deep Learning Tools:

TensorFlow.js, TensorFlow, XNNPACK, TVM, PyTorch

SELECTED PROJECTS

Wasm-Ndarray(on-going), (Rust, Javascript, LLVM)

Spring 2021

Enables matrix operations in JavaScript by building the rust-ndarray into WebAssembly.

- Support Ndarray Data Structure and operations in JavaScript.
- Bind **WebGPU** with Ndarray (planning).

Hyper.media, (Kotlin, Node.js, Python)

Spring 2020

Live-streaming Application aiming to achieve extremely low latency and experiment on its interactions.

- Used Kotlin to develop an Android Application with live streaming and AR (ARCore) functionality.
- Reduced bandwidth with on-device Deep Learning Upscaling Model; **Achieved** half of the original bandwidth requirement.
- Benchmarked live streaming latency among different protocols; Achieved **sub-second latency**.

P5.gif, (Javascript, Gulp, Github actions)

Summer 2018

Assisted users in handling GIF related operations in the browser.

- Captured and exported canvas to GIF, and created GIF image.
- Responsible for API design, automation build, and GIF encoding and decoding in JavaScript.

EXPERIENCE

Google Summer of Code 2021 - Chromium, Student Developer, Remote

May 2021-Present

- Implemented Android NNAPI with XNNPACK backend for ChromeOS. Achieved a 30% improvement in CPU inference time.
- Implemented dynamic load for different backend drivers with the shared library.

Alibaba, Software Development Engineer, Hangzhou, China

Jun 2020-May 2021

- Developed e-commerce Web Applications with React; Serves billions of traffic per day.
- Developed promotion website; Added on-device user-intention detection; **Achieved 3% improvement** of coupon utilization.
- Core developer of **Pipcook**, an open source Deep Learning (DL) framework for JavaScript and large scale training.
- **Embedded** Node.js Runtime into Distributed System and implemented File/Database I/O.
- Reused the DL ecosystem for the **Web** by using **TVM & Emscripten** to compile DL mode into WebAssembly.
- Implemented **Merchant Feeds** and **on-device re-rank** model for it. **Achieved a 10% increase** in Click Through Rate (CTR).
- Combined **user-intention detection** with layout recommendation; Achieved customized User Interface and **10% CTR increase**.

Alibaba, Frontend Development Internship, Hangzhou, China

Jun 2019- Oct 2019

- Implemented text analysis for code and constructed a pipeline for training and deploying the text analysis model.
- Integrated above model into UI auto-generating solution; Got **69% accuracy** in practice; Increased developing efficiency by 30%.
- Developed a Web Application (React) and Backend (Express.js) for the above solution for internal usage.
- Developed GBDT runtime in JavaScript; Used it to detect leaving behavior in website; **Achieved a 5% decrease** in bounce rate.

Google Summer of Code 2019 - TensorFlow, Student Developer, Remote

May 2019- Sep 2019

- Produced **automation test** solutions for web workers based on Karma.
- Added web worker support for browser and Node.js; Made training and inference over JavaScript in **multithread** possible.

COMMUNITY SERVICE

Google Code-in 2019, Student Mentor, Remote

Nov 2019-Jan 2020

- Designed tasks for annual programming competitions to be solved by high school students.
- Mentored students wanting to contribute to TensorFlow.js in the Google Code-in contest.

CERTIFICATION & PUBLICATIONS

[“StoryDroid: Automated Generation of Storyboard for Android Apps”](#), International Conference on Software Engineering, 2019

[Machine Learning Google Developer Expert](#)