

Jiajie (Loria) Sun

Ann Arbor, MI | 734-548-0587 | loriasun@umich.edu

EDUCATION

UNIVERSITY OF MICHIGAN - ANN ARBOR

Bachelor of Computer Science, minor in Mathematics

ANN ARBOR, MI

Sep. 2020 - May 2023

- GPA: 3.8/4.0
- Related Coursework: Data Structures and Algorithms, Web Design, Development and Accessibility, Database Management Systems, Introduction to Theoretical Statistics.

UNIVERSITY OF ILLINOIS URBANA- CHAMPAIGN

Master of Computer Science

URBANA, IL

Jan. 2024 -

EXPERIENCE

Web Developer Intern, University of Michigan Medical School

May 2022 – Present

- Upgraded over 300 WordPress websites to the latest **PHP** version, improving performance and compatibility.
- Improved front-end functionalities using **HTML**, **CSS**, and **JavaScript**, including adding responsive design and enhancing website navigation.
- Managed website backups and updates, ensuring accurate and relevant information.

Software Engineer Intern, Sungallon, China

May 2022 – Aug. 2022

- Developed a Full Stack data dashboard to improve the company's investment in TPE Material production.
- Implemented Real-Time data visualization using **React-uplot** for 500+ workers and managers on the assembly line.
- Streamlined data retrieval processes through **indexing** and **normalization**, resulting in a 30% speed increase.
- Optimized internal systems, including payroll, attendance, and personal information management, leading to efficient management of over 1000 employees and a 13% reduction in employment expenses.

Student Programmer II, University of Michigan

Jun. 2022 – Oct. 2022

- Developed new website features such as dropdown menus and interactive UIs to enhance the user experience for a biophysics research project website with over 1 million page visits using **React.js** and **JavaScript**.
- Created **Docker** images for multiple research projects, written in **React.js**, **JavaScript**, and **Ruby**, to ease deployment and eliminate dependency concerns.
- Deployed websites on multiple cloud platforms, including **Google Firebase**, **Heroku**, and **AWS**, ensuring high availability and scalability for the research project.

Student Research Assistant, University of Michigan

Oct. 2021 – Jun. 2022

- Developed a full-stack search engine using **Python3**, **HTML**, **CSS**, and **JavaScript** for the student learning portal.
- Built a user-friendly interface for keyword searches within lecture recordings, with accurate timestamp results.
- Migrated the back-end from **AWS Elastic Beanstalk** to **AWS Lambda** function reduced the runtime significantly.

Girls Who Code Program Coordinator, Girls in STEM Organization, China

Jan. 2022 - Mar. 2022

- Coordinated biweekly virtual seminars to inspire Chinese female high school students to pursue computer science.
- Directed and taught modules on Writing Scripts, Intro to HTML, and Ethical Concerns to introduce students to programming and computer science concepts.

PROJECTS

Social Media Platform

Jul. 2022 – Aug. 2022

- Developed a full-stack social media **MERN** web application that allows the **CRUD** pattern.
- Constructed **RESTful APIs** for handling **HTTP** requests with **Node.js** as the runtime, **Express.js** as the back-end web server, and **MongoDB** as the document store.
- Implemented front-end with **Material-Ui**, a **React** UI framework for faster and easier stylized web development.
- Utilized **Redux Toolkit** to manage application status and handle asynchronous redux actions.

Multi-Thread MapReduce Jobs Server

Mar. 2021 – Apr. 2022

- Developed a MapReduce command line tool to automate tasks for developers, with configurable input/output paths and execution files.
- Implemented manager and worker classes for task distribution, progress monitoring, and fault tolerance.
- Integrated inspection capabilities for command accuracy.
- Utilized Python threading and socket libraries for efficient parallel computing and reliable communication, including TCP for data transmission and UDP for heartbeat monitoring.

TECHNICAL SKILLS

- **Programming Languages:** Python, C++, HTML5/CSS, JavaScript, SQL, Shell Scripting, MATLAB, R
- **Frameworks:** Bootstrap, Bulma, React.js, Node.js, Express.js
- **Database:** MySQL, SQLite, MongoDB
- **CI/CD & Development Tools:** Git, Docker, AWS, Postman, Firebase, Heroku