

Jiajie (Loria) Sun
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EDUCATION

Master of Computer Science at University of Illinois Urbana-Champaign Aug. 2023 - Jun. 2025 (Expected)
Master of Science in Engineering, Major in Computer Science, GPA: 4.0/4.0 Champaign, IL

Bachelor of Computer Science at University of Michigan - Ann Arbor Aug. 2020 - Apr. 2023
Bachelor of Science, Major in Computer Science, Minor in Mathematics, GPA: 3.8/4.0 Ann Arbor, MI

SKILLS

Languages/Frameworks: Python, C++, Java, JavaScript, TypeScript, React, Django, SQL

Tools/Technologies: Git, Docker, Linux, MySQL, MongoDB, Redis, AWS EC2, gRPC, Protobuf

Others: CI/CD, Cloud Computing, Object-Oriented Programming, Functional Programming

WORK EXPERIENCE

Backend Developer at Schlumberger | gRPC, C#, Python, Protobuf Jun. 2023 - Aug. 2023

- Followed **agile** approach to develop a **gRPC** bridge between **C# .NET** backend and Machine Learning applications, boosting data transfer rates by 30% and supporting real-time processing in the **Petrel**, a leading geoscience software
- Achieved a 70% compatibility rate by **Protobuf** transcoding with '**Ocean for Petrel**' objects, ensuring seamless and asynchronous data transitions, significantly reduced end-users data integration issues
- Deployed the Petrel plugin using **Docker** files and **Kubernetes** templates, scaling to 500+ Engineers

Full Stack Developer at University of Michigan | React.js, Docker, AWS EC2 Jun. 2022 - Aug. 2022

- Architected and implemented cutting-edge UI with **React.js** and **ES6+** catalyzed a 20% surge in user engagement and garnering over 1 million visits for a biophysics research portal.
- Revolutionized deployments using **Docker**, cutting times by 40% and fortifying the efficiency of the micro-services architecture across diverse research projects.
- Orchestrated deployments on **AWS EC2**, **Google Firebase**, and **Heroku**, achieving 90% uptime, supporting 5,000+ concurrent users, and doubling system scalability

Software Engineer at Sungallon | Node.js, MongoDB, D3.js May. 2022 - Aug. 2022

- Engineered a data dashboard with **Node.js** and **MongoDB**, catapulting the ROI on TPE Material production by 20%, leading to more informed investment decisions
- Pioneered visualization with **React-uplot** and **D3.js**, enhancing data retrieval speeds by 30% for 500+ assembly line staff, enhancing on-floor productivity
- Transformed payroll and attendance using **AWS cloud solutions**, including **Lambda** and **RDS**, streamlining operations for 1000+ employees

PROJECTS

MapReduce Command Lines Tool | *MapReduce, Python, Threading, TCP/IP, Socket*

- Designed and implemented a MapReduce tool to enhance distributed application scaling, focusing on **architectural efficiency** and task **distribution optimization**
- Developed manager and worker classes for efficient progress tracking and handling of worker reassignments
- Leveraged Python's threading and socket libraries for enhanced parallel processing and dependable manager-worker communication

SocialSphere | *MERN stack, Material-UI, Redux Toolkit*

- Developed a dynamic full-stack social media application with enhanced **CRUD** functionalities and a user-friendly interface using RESTful APIs and Material-UI
- Optimized performance and user experience by leveraging **Redux Toolkit** for efficient state management and asynchronous actions