Shengyuan Wang

612-203-8894 swang030518@gmail.com linkedin.com/in/shengyuanwang1 github.com/shengyuanwang

Education

University of Illinois Urbana-Champaign **Sep. 2024 – Dec 2025**
Master of Computer Science *Champaign, IL*

Macalester College **Sep. 2021 – May 2024**
Bachelor of Computer Science *St.Paul, MN*

Technical Skills

Languages: Java, Python, Go, C/C++, SQL, JavaScript, TypeScript, HTML/CSS, Kotlin, R
Technologies/Frameworks: React, Vue, Angular, Node.js, Flask, Django, Spring, Redis, MongoDB, MySQL
Developer Tools: Git, Docker, AWS, GCP, Linux, Ubuntu, Kubernetes, Jenkins

Experience

Synopsys Inc. **May 2025 – August 2025**
Technical Engineering Intern *Oregon*

- Redesigned the waveform comparison pipeline for WDF files, introducing modular stages for feature extraction, DTW-based clustering, and outlier detection, leading to a 60% performance improvement.
- Benchmarked and implemented clustering algorithms (e.g., DBSCAN, K-Means, Hierarchical), ultimately selecting and optimizing Dynamic Time Warping (DTW) in C for accurate and efficient waveform analysis.
- Built a flexible XML I/O framework for waveform metadata and presented the full system to customers, earning strong feedback for its clarity, speed, and practical value.

Ericsson **May 2024 – August 2024**
Full Stack Developer Intern *Beijing*

- Developed an internal RCT component management interface using Angular and implemented scalable backend APIs with Node.js, ensuring seamless product and user management.
- Migrated key backend services to AWS Lambda for improved scalability and reduced infrastructure costs.
- Built a cloud storage platform leveraging Docker and AWS S3, supporting 2,000+ concurrent users and managing 200GB+ of data with enhanced performance and reliability.
- Optimized server performance by integrating AWS CloudWatch for monitoring, reducing CPU load from 68% to 21%, and improving data processing speed by 30%.

Tencent **Nov 2023 – Feb 2024**
Backend Software Developer Intern *Minnesota*

- Developed and deployed RESTful APIs using Node.js and TypeScript, enabling real-time data synchronization and analytics for gaming clients.
- Implemented serverless architecture with AWS API Gateway and Lambda, increasing email subscription efficiency by 36.3% while minimizing operational overhead.
- Optimized Redis caching strategies for specific use cases, reducing interface response times from 10 seconds to 3 seconds.
- Migrated databases to AWS RDS and integrated AWS CloudFormation templates for automated resource provisioning, reducing maintenance time by 30%.

Projects

College Application Assistant Website | *React, TypeScript, Flask, Python, MySQL, Docker, GPT-4* **June 2022 – May 2024**

- Led end-to-end development of a college application platform using React, TypeScript, and Flask, integrating dynamic frontend components with scalable backend services.
- Built and deployed AI agents powered by a custom-trained GPT-4 model to assist students with essay feedback, application guidance, and FAQ-style support via a real-time chat interface.
- Engineered backend APIs with JWT-based auth, file management, and AI response pipelines, using Flask and MySQL, enabling secure and responsive user interactions.
- Automated data collection of 2,000+ college applications using Selenium, integrating insights into the AI agent's retrieval system and reducing manual effort by 50%.