Ying-Fang Jaw

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Education

University of Wisconsin-Madison Madison, WI

Master of Science in Computer Science; GPA - 3.85 *Sep. 2024 – Dec. 2025*

Relevant Coursework - Foundation Model, Big Data Systems, High Performance Computing, Data Integration, Advanced Networking Systems, Software Security

Certificate in Computer Science; GPA - 4.0 *Sep. 2023 – May 2024*

Relevant Coursework - Software Engineering, Operating Systems, Database Systems, Networking Systems

Skills

Languages: Python, Java, C, C++, SQL
Frameworks & Tools: Spring, Nginx, Redis, Postgres, Docker, Kubernetes, Helm, Argo, Grafana, Prometheus, Hadoop, Cassandra, Kafka, Spark, AWS, Azure

Experience

The Linux Foundation

Flyte Contributor *Sep. 2025 – Present*

- Implemented local Flyte sandbox environment and experimented with workflow configuration and Go tooling as part of open-source contribution process.

IBM

Software Engineer Intern *July 2025 – Aug. 2025*

- Modernized legacy wafer fabrication services by containerizing and migrating them to Kubernetes, enabling Blue-Green deployment readiness at TSMC and reducing team workload by 30%.
- Implemented GitOps using Argo CD and Argo Rollouts, cutting deployment time by 25%, improving release stability, and enabling fully automated zero-downtime deployments.
- Developed a middleware layer, achieving a 60% reduction in manual validation time and improving rollout safety by invoking CORBA protocol APIs and relaying results to Argo Rollouts as automated health checks.
- Established a CI workflow for an experimental internal project, reducing build and deployment time by 40% through integration of Azure DevOps with local agents.
- Built a custom load testing tool to simulate 1,000+ concurrent users at peak load, validating the scalability of gRPC API services and uncovering performance bottlenecks.

Institute for Information Industry

Software Engineer *Jan. 2022 – Aug. 2022*

- Built and deployed an e-commerce backend with Spring Boot and MySQL, achieving 99.9% uptime for 100+ daily users and supporting critical business operations.
- Developed RESTful APIs for core business modules including order, inventory, and payment, handling 500+ daily transactions and reducing latency by 10% through optimized database queries and caching.
- Implemented OAuth2 authentication using Spring Security and Google Identity, enhancing backend security and enabling seamless, secure user login.

Projects

AI-Driven Database Schema Expansion Tool | *Python, OpenAI, CoT, Prompt Engineering*

- Built a prompt-driven retrieval pipeline that improved data interpretability through accurate semantic expansion of abbreviated column names in relational databases with OpenAI's GPT-3.5-turbo
- Validated the solution across multiple datasets, enhancing schema readability and automation potential while attaining 76–88% accuracy in column name interpretation

Interactive Hard Disk I/O Simulator | *JavaScript, HTML, CSS, C++*

- Developed an interactive hard disk game, showcasing disk I/O in a live demo attended by 200+ people, by building a web GUI with JavaScript, CSS, HTML and implementing algorithms in C++.