

Yiwen (Emelina) Wang

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EDUCATION

Northeastern University, Seattle, WA

Jan 2023 - Dec 2025

Master of Science in Computer Science | GPA 4.0/4.0 | Exceptional Student Representative

AWARDS

- **Top 3 Team & Most Data-driven Solution Award** in Northeastern University Seattle Campus 2024 Needle in a Hack-Stack Hackathon
- **2025 Outstanding Global Network Student Award** from Northeastern University

EXPERIENCE

Software Development Engineer Intern

May 2025 – Aug 2025

Amazon, Personalization – Amazon Business, Seattle, US

- **Designed and developed** a recommender using the **Instruction Embeddings Foundation Model (IEFM)** and **Residual-Quantized Variational Auto-Encoder (RQ-VAE)** to train models and generate semantic ID tokens, improving business-relevant recommendation performance.
- **Accelerated key pipelines** — reduced title generation time by 50% through improved keyword accuracy/resource allocation and optimized token-to-token predictor by 40% via data pre-processing and workflow tuning.
- **Integrated and deployed all components** (semantic tokens, TF-IDF, LLM prompting, similarity services) into a unified strategy, delivering more personalized and business-relevant recommendations for Amazon Business customer.

Software Engineer Intern

Aug 2024 – Dec 2024

Veelongs Corporation - Remote, US

- **Designed and optimized** web interfaces for displaying Collateralized Debt Position (CDP) data from the SUI blockchain using Rust and Move, improving load efficiency and usability for 300+ daily users.
- **Collaborated** with a 4-person team from requirements gathering and system design to testing and deployment to deliver scalable, secure blockchain data solutions. **Built a JavaScript web application** for blockchain data visualization and interaction, enabling real-time CDP monitoring and improving accessibility for decentralized finance users.

Founder, President and Software Engineer

Dec 2023 – Feb 2025

Tech@Crossroads, Northeastern University – Seattle, WA

- **Founded and led** the student organization with tech projects, LeetCode Sessions and events.
- **Scaled** the organization to **350+** members within 1 year and received recognition from campus and university leadership.
- **Initiated, led, and scaled an 8-person development team. Designed & developed** a full-stack inclusive publishing platform with over 100 test users, using **JavaScript** and **MongoDB** as the database. Improved and refactored the backend, boosting backend runtime efficiency by ~70%.

TECHNICAL SKILLS

Languages & Config: Java, Python, Go, Rust, YAML/.stanza configuration

Frameworks & Tools: Spring Boot, Git, Docker, Kubernetes, RabbitMQ, CI/CD, Pipeline Orchestration, gRPC, RESTful APIs

Cloud & Big Data: AWS (S3, SageMaker, Bedrock), Apache Spark, SparkSQL, MySQL, PostgreSQL, MongoDB, MinIO, DBMS

Development & Systems: Backend & Distributed Systems, CLI Development, Containerized Execution, Job Dependency Resolution

AI/ML: Machine Learning & LLM Training, Embedding-Based Models, Prompt Engineering

PROJECTS

Lightweight Service Mesh on Kubernetes with Go and gRPC

Fall 2025

- Designed and building a **Kubernetes-native service mesh** with a custom RouteRule CRD, **Envoy** sidecar injection via mutating webhook, and **Go** controller for routing and canary rollouts. Implementing observability and testing features including OpenTelemetry logging, Prometheus/Grafana dashboards, and automated performance test integration.

Scalable Microservices-Based Java CI/CD CLI System

Spring 2025

- Developed a **scalable CI/CD system** using **Spring Boot** microservices (Backend, Worker, CLI), integrated via HTTP and **RabbitMQ** to support **distributed orchestration**, job execution in **Docker** containers, and artifact storage in **MinIO**. Built an **HTTP-based CLI** using **Picocli** and **YAML** validation to trigger pipeline runs, resolve job dependencies, and report execution status to **PostgreSQL**, enabling modular, cloud-ready workflows.