Shiyang Zhao

480-937-6824 | shiyang2575326696@gmail.com | <u>LinkedIn</u> | <u>Portfolio</u> | <u>Github</u>

EDUCATION

University of Illinois Urbana-Champaign   Expected Dec 2025
Master of Computer Science   *GPA: 3.8/4.0*

Arizona State University   Dec 2022
Bachelor of Science in Computer Science   *GPA: 3.9/4.0*

EXPERIENCE

Graduate Researcher   Jan 2025 – Present
University of Illinois Urbana-Champaign   *Champaign, IL*
- Conducted research on energy-efficient routing and power management for inter-satellite links (ISLs) in collaboration with PhD students Xiaojuan Ma and Shashwat Jaiswal, mentored by Prof. Indranil Gupta
- Explored energy-efficient strategies inspired by ad-hoc sensor networks, focusing on Transmission Power Control, Load Distribution, and Sleep Scheduling
- Investigated advanced routing strategies such as ECARS, ERU-DOD, and ERA-DOD to balance energy efficiency and network performance in ISLs
- Evaluated trade-offs between latency, power consumption, and network stability to enhance ISL longevity and reliability

Software Engineer Intern   Aug 2024 – Apr 2025
Civilience   *Omaha, NE*
- Built serverless RESTful APIs with AWS Lambda, Python (Flask), and Node.js (Express), handling 50,000+ daily requests and improving response times by 22%
- Migrated legacy APIs to microservices architecture, decreasing request latency from 150ms to 105ms and saving $1,200 annually in server costs
- Secured authentication with AWS Cognito and managed large-scale data using DynamoDB and RDS
- Automated 100+ IAM role assignments for AWS EC2 and Amplify, saving 30 hours of manual effort each month

Software Engineer   Feb 2023 – Mar 2024
Rnd4impact   *San Jose, CA*
- Developed scalable APIs with Django and PostgreSQL, boosting query time from 350ms to 200ms
- Built Spring Boot microservices with AWS RDS and S3, enabling scalable storage for 500GB+ of data
- Created a responsive frontend with Next.js and TypeScript, reducing page load time by 1.5 seconds
- Enhanced software reliability with Selenium regression tests, resolving 70+ production bugs

PROJECTS

RainStorm | *Java, Distributed Systems, Multithreading, Socket Programming*   Aug 2024 – Dec 2024
- Designed RainStorm for real-time processing, surpassing Spark Streaming by 15% in throughput
- Improved resilience with 2-second fault detection, state recovery, and dynamic task rescheduling

Metasphere | *Python, Django, React.js, PostgreSQL, Selenium*   Mar 2024 – Jun 2024
- Built a social platform with Reddit-style posts and Instagram-like stories using Django and PostgreSQL
- Implemented real-time comments, stories, chat, and notifications with WebSocket and Celery

EmploVerse | *Java, Spring Boot, Next.js, MySQL, AWS*   Dec 2023 – Feb 2024
- Built an employee management platform with attendance tracking, payroll, RBAC, and reviews
- Reduced manual workload by 45% through automation, increasing efficiency and streamlining administrative tasks

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, C#, Go, SQL, HTML/CSS
Frameworks: Spring Boot, Django, Flask, FastAPI, Node.js, Express.js, Next.js, React.js, Selenium, Jenkins
Tools: PostgreSQL, MySQL, MongoDB, SQLite, Redis, Docker, Kubernetes, AWS, GCP