

# Shiyang Zhao

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## EDUCATION

**University of Illinois at Urbana-Champaign, Champaign, IL**

Expected Dec 2025

Master of Computer Science

GPA: 4.0/4.0

**Arizona State University, Tempe, AZ**

Dec 2022

Bachelor of Science in Computer Science

GPA: 3.9/4.0

## WORK EXPERIENCE

Civiliience

Omaha, NE

**Software Engineer Intern**

Aug 2024 – Present

- Built serverless APIs with AWS Lambda and API Gateway, reducing response time by 200ms and cutting server costs by 14%
- Secured authentication with AWS Cognito and managed data with DynamoDB and RDS (MySQL)
- Implemented real-time monitoring using AWS CloudTrail and CloudWatch, accelerating issue resolution
- Enhanced access control effectiveness by 16% on AWS EC2 and Amplify through automated IAM roles and policies

Rnd4impact

San Jose, CA

**Software Engineer Intern**

March 2023 - Feb 2024

- Built full-stack web applications with Java, Python, TypeScript, Spring Boot, Next.js, and Django
- Developed RESTful APIs with Spring Boot and Django, integrating Google Cloud and AWS for enhanced cloud functionality
- Reduced deployment time by 26% through automation of build, test, and deployment processes using Jenkins CI/CD pipelines
- Increased software reliability with Selenium regression tests, identifying issues early and reducing bugs by 21%

## PROJECTS

**Distributed File System - HyDFS**

Aug 2024 – Present

- Built a Hybrid Distributed File System (HyDFS) in Java across a 10-VM cluster, using Cassandra-style consistent hashing for distributed file mapping
- Designed a membership protocol for failure detection, enabling failures to be detected within 2 seconds and tolerating up to two machine failures with automatic re-replication
- Achieved eventual consistency and ordered appends across replicas, with files syncing within 3 seconds, following Cassandra's resilience approach
- Boosted read speeds with client caching, measuring latency across cache sizes and achieving merge performance within 4 seconds for 1000 concurrent appends

**Social Media Web Application - Metasphere**

March 2024 - June 2024

- Developed Metasphere, a dynamic social platform integrating Reddit-style posts, Instagram-like stories, and other interactive features, built with Django and PostgreSQL
- Enabled real-time interactions with posts, chat, comments, stories, and notifications using WebSocket, Django Channels, and Celery task scheduling
- Automated CI/CD using Jenkins, GitHub Webhooks, and Selenium, ensuring efficient, reliable deployments
- Optimized performance by refining database queries, implementing caching, and streamlining backend processes, improving data retrieval speed by 22% and lowering server costs by 13%

## TECHNICAL SKILLS

**Programming Languages:** Java, Python, JavaScript, TypeScript

**Tools:** Spring, Django, Next.js, Node.js, React.js, Selenium, Jenkins, Git, PostgreSQL, MySQL, SQLite, MongoDB, Redis, Linux, Docker, Kubernetes, AWS, GCP, Azure, Heroku