

Joshua Ho

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SUMMARY

Early-career **Junior SRE / DevOps Engineer** with hands-on academic experience supporting cloud infrastructure, **CI/CD pipelines**, containerized services, monitoring, and incident troubleshooting. Bachelor of Science in Computer Science provides a practical foundation across AWS, Azure, **Linux administration**, Terraform, Docker, Kubernetes, Jenkins, GitHub Actions, Prometheus, and Grafana. Built repeatable infrastructure workflows, automated Python and Bash operations, analyzed logs, tested SQL-backed services, and supported controlled release processes. Brings clear communication, patient troubleshooting, and a team-first approach shaped through lab practicums, research, peer reviews, and technical demonstrations. Eager to contribute to enterprise cloud operations, development and QA collaboration, **system reliability** improvements, and continued growth across DevOps, platform engineering, and SRE work.

EDUCATION

Bachelor's Degree in Computer Science
Illinois Institute of Technology GPA: 3.7
Coursework: Cloud Computing, Operating Systems, Database Systems, Software Engineering, Distributed Systems

2026
Chicago, Illinois

TECHNICAL SKILLS

- **Cloud Platforms:** AWS, Microsoft Azure, Google Cloud Platform
- **Infrastructure as Code:** Terraform, Ansible, HCL
- **CI/CD Tools:** Jenkins, GitHub Actions, Git
- **Container Platforms:** Docker, Kubernetes, Dockerfiles
- **Observability Tools:** Prometheus, Grafana, Alerting
- **Operating Systems:** Linux, Ubuntu, Process Management
- **Scripting Languages:** Python, Bash, Shell Scripting
- **Source Control:** Git, GitHub, Pull Requests
- **Database Technologies:** SQL, Relational Databases, SQL Schema
- **Software Delivery:** CI/CD, Release Management, Deployment Workflows
- **Testing Practices:** Unit Testing, Load Testing, Test Harnesses
- **Reliability Operations:** Incident Response, Log Analysis, Troubleshooting
- **Development Methods:** Agile, SDLC, Peer Review
- **Kubernetes Operations:** Namespaces, Manifests, Service Discovery
- **Cloud Security:** AWS Security Variables, Access Controls, Security Configuration

SKILLS

- | | | | |
|-------------------------|----------|--------------|--------------|
| • AWS | • Bash | • Git | • Terraform |
| • Azure | • Python | • CI/CD | • Prometheus |
| • Google Cloud Platform | • Java | • Docker | • Grafana |
| • Linux | • SQL | • Kubernetes | |

EXPERIENCE

Junior SRE / DevOps Engineer Lab Practicum
Student Cloud Operations Lab

January 2026 - August 2026
Chicago, Illinois

Supported a supervised cloud operations lab focused on AWS infrastructure, CI/CD delivery, Kubernetes workloads, monitoring, **release management**, and production-style incident exercises. Owned repeatable automation tasks and documentation that helped classmates practice reliable deployment and recovery workflows.

- Provisioned a three-tier **AWS** lab environment with **Terraform**, separating networking, compute, and security variables so deployment exercises stayed repeatable.
- Built **GitHub Actions** workflows for Python services with linting, unit tests, Docker image creation, and controlled Kubernetes namespace deployment.
- Configured Prometheus metrics and Grafana dashboards for pod health, CPU, memory, and response behavior, helping teams spot reliability issues during load tests.
- Wrote Bash and **Python** utilities for log collection, process checks, and failed-deployment diagnostics, giving classmates a consistent troubleshooting path.

- Practiced **incident response** through simulated outages by tracing failures across Linux processes, container logs, Kubernetes events, and relational database connections.
- Documented release procedures, rollback steps, repository conventions, and alert thresholds through Agile sprint reviews and instructor feedback.

Cloud Reliability Research Assistant

September 2025 - December 2025

University Research Lab

Chicago, Illinois

Conducted supervised research on reliability patterns for Docker and Kubernetes workloads across Linux, AWS, and Azure environments. Combined repeatable testing, observability, source control, and technical reporting so faculty and student researchers could compare recovery behavior with clear evidence.

- Evaluated Docker and **Kubernetes** workloads on a five-node Linux cluster using repeatable test scripts, identifying conditions that affected availability and recovery.
- Compared AWS and **Azure** deployment configurations for availability, logging, and recovery behavior, then summarized findings in a technical research report.
- Developed Python and **Bash** test harnesses that generated service requests, captured response logs, and organized **SQL** results for repeatable analysis.
- Created Grafana visualizations from Prometheus data to examine restart counts, latency trends, and resource saturation during controlled fault scenarios.
- Applied Git branching, **pull requests**, **peer review**, and issue tracking so experiment code remained reproducible and documentation stayed clear.
- Presented reliability findings to faculty and student researchers, translating infrastructure observations into practical monitoring and alert design recommendations.

DevOps Engineering Capstone Developer

January 2025 - May 2025

Capstone Project Studio

Chicago, Illinois

Delivered a supervised DevOps capstone for a student service portal, connecting **AWS** architecture, container packaging, Kubernetes deployment, Jenkins automation, Terraform, testing, and operational handoff materials. Coordinated application, database, and release decisions around a dependable SDLC process.

- Designed a cloud deployment prototype for a student service portal, mapping application, database, and container requirements into an AWS architecture.
- Created Dockerfiles and Kubernetes manifests for web and API services, then validated startup behavior and service discovery in a local cluster.
- Implemented a **Jenkins** pipeline connected to Git for source checkout, Java build validation, **unit testing**, image packaging, and deployment approval steps.
- Used Terraform for foundational resources and stored configuration changes in a documented repository with peer-reviewed pull requests.
- Added **Prometheus** exporters and **Grafana** panels, using test traffic and application logs to locate failed requests and resource constraints.
- Produced an **SDLC** handoff package with architecture diagrams, SQL schema notes, operating instructions, test evidence, and a recorded stakeholder demonstration.

PROJECTS

Multi-Cloud Reliability Testbed 📅 2025

Built a research testbed comparing AWS and Azure deployment behavior across Docker, Kubernetes, Linux, Prometheus, and Grafana. Python and Bash test harnesses generated traffic, captured logs, and organized SQL results for fault analysis.

Kubernetes Service Portal Deployment 📅 2025

Created a containerized student service portal with separate web and API services, Kubernetes manifests, Dockerfiles, and local service discovery tests. Documented startup checks, database assumptions, and operational handoff steps.

Automated Cloud Release Pipeline 📅 2026

Developed a release workflow combining GitHub Actions, Jenkins, Terraform, Python, Docker, unit testing, and controlled deployment approvals. Added rollback guidance and alert thresholds so peers could practice safer release management.

LEADERSHIP & AWARDS

- Dean's List, Illinois Institute of Technology, Fall 2025 and Spring 2026
- Best Infrastructure Automation Demonstration, Computer Science Capstone Showcase, 2026
- Undergraduate Research Presentation Honoree, Cloud Reliability Research Forum, 2025

CERTIFICATIONS

- AWS Certified Cloud Practitioner 📅 2026

- HashiCorp Certified: Terraform Associate 📅 2026

PROFESSIONAL AFFILIATIONS

- DevOps Study Group Peer Facilitator, Illinois Institute of Technology, 2025-2026
- Linux and Cloud Computing Club Workshop Coordinator, Illinois Institute of Technology, 2024-2026

LANGUAGES

- English (Native)
- Mandarin Chinese (Proficient)

ADDITIONAL INFORMATION

Work Status : Authorized to work in United States. No sponsorship required.

REFERENCES

AVAILABLE ON REQUEST