

Lianhao Zheng

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EDUCATION

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|---|-----------------------|
| Northwestern University | June 2026 |
| <i>Concurrent B.A. and M.S. in Computer Science (GPA 3.90/4.00)</i> | <i>Evanston, IL</i> |
| <ul style="list-style-type: none">Relevant Coursework: Data Structures and Algorithms, Database Systems, Distributed Systems, Cloud Infrastructure, Operating Systems, Software Quality Testing, Computer Networking, System SecurityActivities: Dean's List (9/9) QuestBridge Scholar LEDA Career Fellow Meta ABCS Fellow CodePath Tech Fellow Society of Asian Scientists and Engineers (Head of Cultural Events) Basta x Google Code2Career | |
| Oxford University | Sep. 2025 - Dec. 2025 |
| <i>Visiting Student Programme</i> | <i>Oxford, UK</i> |
| <ul style="list-style-type: none">Relevant Coursework: Concurrency, Concurrent Programming, Concurrent Algorithms and Data Structures | |

TECHNICAL SKILLS

Languages: Python, C, C++, TypeScript, JavaScript, Bash, SQL, HTML, Java, Rust, Go

Frameworks: Git, Node, Express, React, React-Native, MySQL, PostgreSQL, JUnit

Tools: AWS, Docker, Git, Expo Go, Figma, MongoDB, Firebase, Jira, Gradle

PROFESSIONAL EXPERIENCE

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| Amazon Web Services (AWS) | June 2025 – August 2025 |
| <i>Software Engineer Intern – Elastic Container Registry</i> | <i>New York, NY</i> |
| <ul style="list-style-type: none">Enhanced cross-region, cross-account container image replication feature by implementing backfill functionality, enabling replication of pre-existing images and improving availability, durability, and automation for millions of customersDeveloped asynchronous, event-driven workflows in Java, leveraging Lambda, DynamoDB, SQS, and CloudFormation to replicate container images reliably and at scale across multiple AWS regions and accounts, supporting millions of image operations dailyRefactored replication workflows to emit metrics for improved CloudWatch observability and error logging, and implemented distributed rate limiting for Backfill to prevent overloading downstream replication services | |
| Prescience Lab | Mar. 2025 – June 2025 |
| <i>Research Assistant</i> | <i>Evanston, IL</i> |
| <ul style="list-style-type: none">Built a distributed, DAG-based query engine in Rust for the Privacy Backplane Project, enabling real-time, policy-aware data processing across peer-to-peer nodes to be ran on Trusted Executed EnvironmentsImplemented a gossip-based peer discovery protocol with libp2p to support scalable, decentralized query deployment and secure communication in privacy-critical IoT environments | |
| Olympus LLC | June 2024 – Aug. 2024 |
| <i>Software Engineer Intern</i> | <i>Chicago, IL</i> |
| <ul style="list-style-type: none">Built a Next.js, React, and TypeScript full-stack application incorporating Radix UI, Lucide-React, and Styled Components to enhance UI and streamline file uploads for 200+ athlete workout templatesEnsured reliable REST API integration with PostgreSQL and Redis databases via manual testing with Postman, and maintained agile workflows through Jira, sprints, and daily standups | |

PROJECTS

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| OHours <i>React, Vite, Tailwind CSS, Shadcn, Firebase</i> | ohours.web.app |
| <ul style="list-style-type: none">Engineered an intelligent office hour queuing system with a Non-preemptive Static Priority Scheduler to help teaching assistants more efficiently manage questions with reduced wait time by 40%Generated unit tests with Jest and React Testing Library, utilizing Vitest for dependency mocking to enhance test coverage, accuracy, and component reliability | |
| NSAET <i>Python, Git</i> | |
| <ul style="list-style-type: none">Built a Python CLI tool to audit web domains by scanning DNS (A/AAAA), TLS/SSL versions, HTTP configurations, and geolocation using tools like nslookup, openssl, nmap, telnet, and MaxMind GeoIP databaseGenerated structured JSON outputs and automated text reports to summarize security features, latency metrics, and HTTPS adoption across scanned domains | |