

# Yizhen Liu

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## SKILLS

**Languages:** Python, Java, C++, HTML, CSS, JavaScript, TypeScript, SQL, C, Bash, Common Lisp, Go, C#

**Utilities:** Amazon EC2, Angular, Azure DevOps, Docker, Express.js, Git, GitHub Actions, Google Compute Engine, Jest, Jira, JUnit, Kubernetes, Linux/Unix, Microsoft Azure, MongoDB, MySQL, Node.js, PostgreSQL, React.js, SQLite

## EXPERIENCE

**Motorola Solutions** · Schaumburg, IL

Mar. 2023 — Present

Software Engineer

- Launch an authorization and validation layer with **Spring Cloud Gateway** and **GitHub Actions** before **Kubernetes** clusters, consolidating 4 projects into 1 across 8 environments and ending a 6-month stagnation in product delivery
- Resolve **Jira** tickets to address partner concerns from access control to major production metric outages, winning 2 consecutive awards for outstanding performance
- Conduct monthly CVE maintenance on an in-house **Prometheus** solution by incorporating vendor patches into **Docker** images, meeting system integrity and compliance goals while protecting sensitive and confidential data from emerging threats
- Enforce company-wide access policies by automating **Azure CLI** commands with **Python** to display invalid user accounts, curtailing storage expenses and mitigating the risk of system breaches

**Paylocity** · Schaumburg, IL

Jun. 2022 — Sep. 2022

Software Development Intern

- Contributed to the initial development of a data access feature through expanding business logic on the **ASP.NET Core** API and **React.js** client application, enabling nearly 3,000 users without write permissions to retrieve their files
- Partnered with another engineer to revise event emitter mechanisms in an internal module to support telemetry for the mobile app using **Ionic Framework**, leading to 80% reduction in time for reporting and investigating the cause of software errors
- Recorded user activities on the React.js website with 100,000+ weekly users through configuring 20+ custom triggers on **Google Tag Manager** to form new insights on continuous UI/UX improvement

**Numecent** · Irvine, CA

Jan. 2022 — May 2022

Software Development Intern

- Containerized the customer tracking portal by loading, building, and configuring several **Docker** images, streamlining the deployment process and reducing configuration issues for the DevOps team
- Replaced a legacy C++ product key generator with a new **PowerShell** script for the customer tracking service, shortening the feature delivery lifecycle by 60%
- Enhanced the customer tracking portal by leveraging the **MEAN stack (MongoDB, Express.js, AngularJS, and Node.js)** with new features and improvements, enabling its users to operate the application seamlessly

## PROJECTS

### ArdentChat

A real-time messaging application for one-on-one communication between 50 students and staff members.

- Implemented the front-end with **React.js** so users can send text messages and receive media files such as GIF and PDF
- Communicated with the Atlas **MongoDB** service from an **Express.js** back end to store and manage user data
- Utilized **Socket.IO** to establish full-duplex instant connection between two parties of the communication

### Fabflix

A **Java EE** web application with high scalability allowing customers to search and purchase over 20,000 movies under 500ms.

- Synchronized the data between leader and follower **MySQL** databases by creating two load balancers to distribute the network traffic, trimming the response time from over 400ms to 100-200ms
- Integrated fuzzy search backed by the edit distance algorithm into the application while keeping the response time around 80ms
- Optimized data processing time from 25 minutes down to 3 minutes for parsing over 70,000 data entries using batch insert and a hash table

## EDUCATION

**University of California, Irvine**

M.C.S., Computer Science · 3.87/4.00

Dec. 2022

B.S., Computer Science · 3.78/4.00

Jun. 2021