Zhihao Lin

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Education

University of Minnesota, Twin Cities   Exp. Dec 2025
Bachelor in Computer Science   GPA: **3.9/4.0**
Coursework: Data Structure, Algorithms, Operating Systems, Database Systems, Computer Networks

University of Massachusetts, Amherst   Sep 2024 - Dec 2024
Exchange Student in Computer Science
Coursework: Search Engines, Computer Organization, Natural Language Processing

Skills

- **Languages**: JavaScript, TypeScript, Java, C, C++, Python, HTML/CSS, SQL
- **Frameworks & Libraries**: React, Redux, React Router, Next.js, Spring Boot, Node.js
- **Databases & ORMs**: MySQL, PostgreSQL, MongoDB, Supabase, Redis, Prisma, MyBatis
- **Tools & Services**: AWS (S3, RDS, EC2, Lambda), Linux, Git, Docker

Projects

zephyrlin.me | *React, Next.js, Supabase, Prisma, Tailwind CSS, Framer Motion*   Sep-Oct 2024

- Built my portfolio with **Next.js**, featuring home, blog, project, and message pages, and deployed it on **Vercel**.
- Implemented root components of each page as **Server Components**, while moving **Client Components**, such as a message form, down the component tree to reduce the client-side JavaScript bundle size.
- Integrated **Markdown and MDX** for rendering blog contents. Utilized **Sanity** CMS to manage projects data.
- Developed the message page using **Supabase** as the database and **Prisma** for ORM, integrated with user authentication through **Clerk**.
- Enhanced user experience(**UX**) by using React **Suspense** components to manage loading states for messages data and user login status, and utilized the Next.js **App Router** for seamless page navigation.
- Styled with **Tailwind CSS** and incorporated **Framer Motion** for smooth animations and interactions.

Fast Pizza | *React, React Router, Redux, Tailwind CSS, Vite*   Aug 2024

- Individually developed a pizza ordering website **frontend** using **React** and **Vite**.
- Implemented multi-page navigation with **React Router** and styled the UI using **Tailwind CSS**.
- Managed global states such as user and cart data using **Redux Toolkit**.
- Implemented **RESTful** APIs for remote data fetching and mutation, utilizing **React Router**'s data loaders and actions for efficient data handling.

Sky Takeout | *Spring Boot, MyBatis, MySQL, Redis, Amazon S3, JWT*   March 2024

- Developed the **backend** of an customer ordering and restaurant management application using **Spring Boot**.
- Managed data persistence with **MyBatis** as the ORM and **MySQL** as the database, following the **MVC** pattern.
- Cached frequently accessed data such as store open/close status with **Redis**, reducing database load and improving response times in high-concurrency environments.
- Utilized **Amazon S3** to store images of dishes and other media assets.
- Implemented **JWT** for secure authentication, utilizing ThreadLocal and interceptors to manage sessions.

Uthread | *C, Multithreading, Scheduling Algorithms, OS*   March 2024

- Developed a user-level thread library with 9 APIs in the user space mimicking **pthread** library.
- Implemented three scheduling algorithms: **Round-Robin**, **Static Priority** and **Dynamic Priority** Scheduler with aging mechanism.