Ethan Zhu

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Skills

Languages: TypeScript, JavaScript, Java, Kotlin, Go, Python, SQL, C/C++, HTML, CSS
Web Dev: Next.js, React.js, TailwindCSS, Zustand, tRPC, Spring Boot, Node.js, Express.js, Hono, Django, FastAPI
Data & Infra: MySQL, PostgreSQL, MongoDB, Redis, RabbitMQ, Kafka, Nginx, Caddy, Spark, Hadoop, Dask, Ray
DevOps: Linux/Unix CLI, Shell Script, Git, CI/CD, Docker, Kubernetes, Jenkins, Github Action, Google Cloud, AWS

Experience

Full Stack Software Engineer - SiengDart LLC. Aug 2024 – Nov 2024
Accounting and Project Management Platform Newark, Delaware

- Reduced accounting time from 8 hours to 2 hours and data entry errors by 99% via building a full-stack bookkeeping system with **Nest.js** and **Next.js** in **TypeScript**
- Enhanced stakeholder oversight of projects, ownership, and profit distribution by engineering an interactive shareholder dashboard using **React**, **shadcn/ui**, and **Tailwind CSS**
- Established role-based control for financial data by **OAuth2** and **JWT** authentication via passport.js

Software Engineer - Yufeili Medical Commercial Co.,Ltd. June 2022 – July 2024
Medical Consumables Procurement Platform Guangdong, China

- Designed and implemented 4 microservices (User Info, Merchant, Order Management, After-sales) for medical consumable ordering and sales by using **Java**, **Spring Boot**, **RESTful API**, and **MySQL**
- Optimized database performance for frequent queries and increased QPS from 1,000 to 1,500 by analyzing slow queries with **EXPLAIN** and **composite indexes**, reducing 10% in average search time for daily business
- Accelerated load times from 2000 ms to 200 ms in high-traffic periods by implementing hot data caching using **Redis** and LRU eviction to store seasonal frequently accessed consumables
- Designed fault-tolerant order mechanism and eliminated order failures by 99% during peak time by using **RabbitMQ** with **Topic Exchange** to segregate orders from major and minor suppliers
- Identified pain points in invoice processing and minimized manual entry time from 5 hours to 30 minutes by implementing batch invoice title upload/download functionality using **Apache POI**

Financial System Consultant - HAND Enterprise Solution Co.,Ltd. July 2018 – Apr 2020
Oracle ERP/EPM System Shanghai, China

- As team leader, optimized budget planning procedure and decreased planning time from 5 months to 3 months by **Business Process Reengineering (BPR)** and delivering features by **SCRUM** agile method
- Led integration of data schema between ERP and legacy systems and achieved 99.9% data consistency for financial statement generation by implementing **ETL** pipelines using **Python**

Projects

Full-stack Project Management System | Bun, Next.js, Hono, Prisma, PostgreSQL

- Implemented **feature-based architecture** with three main features (workspaces, projects, tasks), featuring real-time task tracking, project analytics, and team collaboration capabilities
- Built **RESTful API** for backend using **Hono RPC** with **Zod** validation, ensuring end-to-end type safety
- Designed state management using **@tanstack/react-query** for efficient data fetching, caching, and updates
- Implemented **responsive design Kanban** with optimistic updates and bulk operations for task management

Distributed Document Search System | Apache Zookeeper, HAProxy, Wireshark

- Implemented Leader-Worker distributed system with auto-healing and re-election using **Apache Zookeeper**
- Implemented **Time Frequency-Inverse Document Frequency** algorithm to enhance search accuracy
- Built load balancer by **HAProxy**, improving system's availability by routing TCP and HTTP traffic

Education

Johns Hopkins University | MS in Engineering, Computer Science Aug 2024 – Dec 2025
Guangdong University of Finance & Economics | BBA in Supply Chain Management Sept 2014 – June 2018