Yisheng (Ethan) Zhu

1 E University Parkway, Baltimore, MD | ethanzhu928@gmail.com | (443)-320-3872

Education

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

Skills

Languages: Java, HTML, CSS, JavaScript/Typescript, Python, SQL, C/C++

Framework and Middleware: Spring Boot, Node.js, Express.js, Nest.js, FastAPI, Hibernate, Redis, Rabbit MQ, Apache ZooKeeper, Apache POI, Elastic Search, Nginx, React.js, Next.js, Tailwind CSS, Zustand

Dev Tools: Git, Docker, Maven, IntelliJ IDEA, Visual Studio Code, Insomnia, Wireshark

Experience

Software Engineer - Shaoxing Geek Info LLC. — July 2024 – Sept 2024
Accounting and Project Management System | Nest.js, Next.js, TypeScript, PostgreSQL — Remote

- Engineered and developed an bookkeeping system using **Nest.js** and **Next.js** by referencing handcrafted accounting methods, improving efficiency of recording and analysis of profits and expenses up to 80%
- Accomplished integration of 2 third-party payment platforms for automated sales data imports, improving bookkeeping process by decreasing manual entry time from 2 hours to few seconds per day
- Built identity authentication via **@nestjs/passport** , enabling granular access control for shareholders to financial data

Software Engineer - Foshan Yufeili Medical Commercial Co.,Ltd. — June 2020 – July 2024
Yufeili Procurement Platform | Java, Spring Boot, MySQL, Redis, Rabbit MQ — Foshan, Guangdong, China

- Designed and implemented 4 microservice modules (User Info, Merchant, Order Management, After-sales) for internal procurement platform based on **Spring Boot**, completing project 10% under budget and ahead of schedule
- Optimized database performance for high-volume services, increasing QPS from 1,000 to 1,500 by analyzing slow queries with **EXPLAIN** statements and implementing **composite indexes**, reducing 10% in average search time
- Implement an automated invoice processing using **Apache POI** and Excel, streamlining upload and download of invoice headers and reducing processing time from days to minutes, resulting in a 90% decrease in manual data entry
- Developed a caching solution using **Redisson** distributed lock and Redis to mitigate cache penetration during peak load of 10,000 QPS, improving system stability by 99% and reducing database load by 70%
- Implemented a message queuing mechanism using **RabbitMQ** to optimize order processing, balancing database load and preventing system outages during peak periods with 5x normal traffic

Budget Planning Consultant - Shanghai HAND Enterprise Solution Co.,Ltd. — July 2018 – Apr 2020
Budget Planning Schema design and Planning System implementation — Shanghai, China

- Conducted analysis of client budgeting processes, executing Agile-based Business Process Reengineering (BPR) to optimize financial planning, resulting in up to 50% reduction in labor hours and time costs
- Designed and proposed 2 Oracle Hyperion planning system optimizations based on client demands analysis, resulting in executive approval and 2 client appreciation letters
- Led integration of deployed planning systems and existing ERP systems for 3 clients, leading 95% reduction in data entry errors and 100% on-time financial reporting compliance

Projects

Distributed Document Search System | Apache Zookeeper, HAProxy, Wireshark

- Designed and implemented a Leader-Worker cluster architecture based on **Apache Zookeeper** featuring auto-healing and re-election mechanisms by utilizing sequential lock with predecessor watching strategy to mitigate the Herd effect
- Developed an automatic service registry mechanism that dynamically adds new nodes and removes unhealthy nodes from server clusters, eliminating the need for manual configuration file updates
- Implemented a document ranking algorithm using Time Frequency-Inverse Document Frequency (**TF-IDF**) to enhance search result relevance and accuracy
- Built load balancing mechanism by integrating **HAProxy**, enabling Layer 4 (TCP) and Layer 7 (HTTP) traffic routing to enhance the document search system's stability and performance