Yunmu Shu

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EDUCATION

Northeastern University

Boston, MA

Master of Science in Computer Science (GPA: 4.0/4.0)

Sep. 2022 - May. 2025

Northeastern University

Boston, MA

Master of Science in Financial Mathematics

Sep. 2021 – Aug. 2022

Guangdong University of Foreign Studies Bachelor of Science in Economics Guangzhou, Guangdong Sep. 2017 – Jun. 2021

EXPERIENCE

Software Developer Intern

Feb. 2024 – Jun. 2024

Dassault Systèmes

Waltham, MA

- Assisted the development of quality document control solutions, delivering tailored document management systems to clients compliant with diverse regulatory standards
- Leveraged Java Servlet to architect endpoints in NuoDB by MQL for robust data operations, implementing caching strategies to reduce latency by 55% and minimize excessive database requests
- Utilized React.js and internal WebUI components for rendering document data to enhance smooth user experience
- Developed programs using WinSCP in Linux environment to to convert file category configurations from up to 7 different languages to JSON format for the Controlled Document Management component

Software Developer Intern

Jun. 2024 – Aug. 2024

Rapid Micro Biosystemes(NASDAQ: RPID)

Lexington, MA

- Proposed and discussed various database schema update options with team members, finalizing a solution that improved scalability and performance by adding over 120% more fields.
- Refactored legacy PHP code by introducing object-oriented principles, increasing maintainability and readability
- Set up Apache server locally to simulate production environment for easier development and smooth transitions
- Migrated MySQL data from the server to the local environment to improve development efficiency
- · Configured virtual host to test the updated application and used shell scripts for automating database updates and backups

Software Developer Intern

May. 2023 – Aug. 2023

Tatfook Technology Co., Ltd

- Collaborated with backend developers to develop **RESTful** APIs using **Koa2** and **TypeORM** for efficient management of plant observation data, leveraging factory patterns to cohesively generate objects
- Boosted user feedback by 60% through the implementation of a reporting dashboard with an integrated Modal using Next.js for its server-side rendering and Axios
- Conducted API testing using **Postman** to validate functionality and improve code test coverage of different endpoints.
- Implemented CI/CD pipelines utilizing GitLab for code uploads and Jenkins for seamless deployment

Projects

Husky Town

Oct. 2023 – Dec. 2023

- \bullet Collaborated with team members to develop a pixel-based game in **Dlang** featuring real-time chat functionality and player render for multiple user based on **DUB** to manage project
- Designed both client and server-side TCP communication modules using Socket programming techniques
- Integrated multi-threading for efficient game rendering and chat to further enhance performance and interactivity
- Implemented packet serialization to increase packet capacity by 40%, resulting in smoother character rendering

GeeCache

Jun. 2024 – Jul. 2024

- Implemented a distributed caching system by developing both local cache and HTTP-based distributed cache, supporting Least Recently Used caching strategy in GoLang
- Utilized Mutex Lock to prevent cache stampedes and ensure data integrity
- Integrated consistent hashing to select nodes, ensuring load balancing and efficient cache distribution
- Optimized inter-node communication using **protobuf** for efficient binary data exchange

Campus Stray Animal Monitor

Jan. 2023 – Feb. 2023

- Employed SpringBoot3 and Hibernate to proficiently map data into objects, streamlining data operations by 34%
- Leveraged React.js and implemented useContext to develop a single-page application, reducing 35% page reloads time
- Validated user credentials and generated **JWT** tokens, providing service for users with different permissions

TECHNICAL SKILLS

Programming Languages: Frameworks:

Databases:

Tools:

Java, C/C++, JavaScript, TypeScript, Go, SQL, Python, Ruby Springboot, J2EE, React, Next.js, Express.js, Node.js, Django MySQL, Redis, MongoDB, PostgreSQL, DynamoDB, Hibernate AWS, Docker, Linux, Postman, Nginx, Git, JUnit, Maven, Log4j