# 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

Guangzhou, Guangdong

Bachelor of Science in Economics

 $Sep. \ 2017 - Jun. \ 2021$ 

## 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

- 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, React, Next.js, Express.js, Node.js, Django, Rails MySQL, Redis, MongoDB, PostgreSQL, DynamoDB, Hibernate AWS, Docker, Linux, Postman, Nginx, Git, JUnit, Maven, Log4j