Yunmu Shu

+1(857)-334-3706 | bobbyshu0824@gmail.com | linkedin.com/in/bobbyshu | github.com/Bobbyshu | https://bobbyshu.github.io/

EDUCATION

Northeastern University Boston, MA
Master of Science in Computer Science (GPA: 3.9/4.0) *Sep. 2022 – Aug. 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
- 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 Jan. 2025 – Jun. 2025
First Help Financial *Needham, MA*
- Contributed to the development of a middleware framework supported by Spring REST API and **AWS ElastiCache** for Redis for caching and replaying of requests to provide service connect external and internal application
- Designed a local event within the **Angular.js** Decision Lender application to extract and map property through AWS Kinesis, facilitating loan decisioning by collecting relevant data to the backend API for evaluation
- Enhanced a Python-based loan structure library for automating the restructuring of loan application itemization
- Coordinated with senior engineers and QA teams using agile methodologies and JIRA for project management

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
- Improved user feedback by **60%** by developing a reporting dashboard with an integrated Modal, leveraging **Next.js** for server-side rendering and **Axios** for data handling
- Implemented CI/CD pipelines utilizing **GitLab** for code uploads and **Jenkins** for seamless deployment

PROJECTS

Tripadvisor App Oct. 2024 – Nov. 2024
- Developed a Tripadvisor-like application, using **Redis** as middleware to optimize and implement key functionalities
- Optimized the flash sale feature by implementing read-write separation, utilizing **Lua** scripts to ensure atomicity of operations and stream **Message Queue** for order processing, reducing API response time to tens of milliseconds
- Designed user like/follow features with Zset and check-in functionality using **Bitmap** for best practice

GeeCache Jun. 2024 – Jul. 2024
- Implemented a distributed caching system in GoLang, developing both local in-memory cache and HTTP-based cache with **Least Recently Used** strategy, and optimized inter-node communication using **protobuf**.
- Employed **Mutex** locks to prevent cache breakdown and ensure data consistency under concurrent access
- Integrated consistent hashing to select nodes, ensuring load balancing and efficient cache distribution

TECHNICAL SKILLS

Programming Languages:	Java, C/C++, Go, JavaScript, TypeScript, SQL, Python, Ruby
Frameworks:	Springboot, J2EE, React.js, Next.js, Express.js, Node.js, Django
Databases:	MySQL, Redis, MongoDB, PostgreSQL, DynamoDB, Hibernate
Tools:	AWS, Docker, Postman, Nginx, Git, JUnit, Jmeter, Maven, SLF4J