Yunmu Shu

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

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

${\bf Gee Cache}$

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: Frameworks:

Databases: Tools:

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