

# Yueheng Yuan

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## EDUCATION

### Northeastern University

September 2022 - June 2025

*Master of Science in Computer Science, GPA: 4.0*

- Teaching Assistant: Discrete and Data Structures, Web Development
- Related Courses: Algorithm, Cloud Computing, Computer Networking, Computer System

## WORK EXPERIENCE

### CLYNK

July 2024 - December 2024

*Software Developer*

- Architected and implemented a scalable full-stack billing management app using **Vue**, **TypeScript** and **Electron**, collaborating with **cross-disciplinary** teams, which supported a **25%** increase in daily transaction volume
- Revamped invoice dashboards using Vue.js, achieving a **20%** reduction in page load time by optimizing component rendering and state management, which enhanced user engagement by **15%**
- Developed and maintained **RESTful APIs**, optimizing data exchange between financial services, resulting in a **25% reduction** in transaction processing time and improving data consistency by **30%**
- Optimized **SQL** queries and restructured the database schema for the invoice management system, reducing data redundancy by **35%**, cutting query response time by **40%** and boosting invoice retrieval efficiency across **50,000+** products
- Created and deployed **CI/CD** pipelines using Docker, slashing deployment time by **50%** and ensuring 100% continuous integration and automated testing coverage

## PROJECTS

### GeneWeaver Backend System, [geneweaver.org](http://geneweaver.org)

August 2023 - December 2023

- Developed **REST API** for Jackson Laboratory using **Python & Flask** in **Scrum** environments
- Integrated analytical tools in microservices and mitigated downtime during tool update by **18%**
- Developed backend business logics including user authentication/sign-on and gene set upload; Performed data insertion and retrieval with **PostgreSQL** and **SQLite**
- Optimize runtime performance on concurrent tasks using **Async Python** and recurrent analytical queries using **Page Caching**; Implemented secure data access point using **HTTPS** protocols & web authentication

### eCommerce Platform

May 2023 - December 2023

- Built up a **MERN** stack-based eCommerce platform; Developed and maintained software features to enhance customer engagement through front-end **UI** components, REST API services, and data modeling
- Designed data model using **MongoDB**; integrated **Mongoose** for query searching performance enhancement and **Redis** for schema definition; Leveraged **JWT** for API authentication and **Redux** Toolkit for state management
- Applied **Postman** for end-to-end testing and **Stripe** API for payment; Utilized **Heroku** for deployment & **CI/CD** pipeline for smooth deployment and continuous integration

### Online News Website

January 2023 - August 2023

- Developed and launched a web application for displaying popular trends from various sources using **Java** under the **Spring Boot** framework in **Agile** development cycles
- Implemented event streaming service using **Kafka** to transmit top trending videos based on views and kudos
- Incorporated **Redis** cache into backend service for distributed lock and query reduction
- Designed a backend notification system and stored data into **MySQL** database; Constructed a static HTML converter using Apache and Nginx with minimized loading time

## TECHNICAL SKILLS

- Language: Python, Java, JavaScript, TypeScript, C/C++, HTML/CSS, Go, Ruby, Swift, R
- Framework & Tools: React, Vue, Angular, Flask, Django, Express, Node.js, Maven/Gradle, Spring Boot
- Databases & Cloud Services: PostgreSQL, MySQL, MongoDB, Redis, AWS, Docker, CI/CD, Git