

Mark Han

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EDUCATION

Binghamton University, SUNY | Thomas J. Watson College of Engineering and Applied Science

Bachelor of Science in Computer Science

Expected Dec 2024

Cumulative GPA: 3.48 / 4.00

Achievements: Dean's List: Fall 2020, Spring 2021, Upsilon Pi Epsilon Computer Science Honor Society

Relevant Coursework: Programming & Hardware Fundamentals, Architecture from Programmer's Perspective, Advanced Computer Architecture, Programming with Objects & Data Structures, Data Structures and Algorithms, Design & Analysis of Algorithms, High Performance Computing, Database Systems

TECHNICAL SKILLS

Languages: Java, C, C++, SQL, PL/SQL, HTML, CSS, JavaScript, Typescript, Python, Bash, Assembly,

Frameworks: Angular, Spring (Boot, Data, Security, MVC, AOP), Hibernate, Bootstrap

Tools and Technologies: Git, Eclipse, AWS, MongoDB, MySQL, GitHub Actions, Docker, Oracle, JDBC, Maven, React

PROJECT EXPERIENCE

E-commerce Website - Angular, Spring Boot, MySQL, AWS, Docker, GitHub Actions

- Designed a full-stack E-commerce website allowing customers to browse, checkout with Stripe, and track orders
- Constructed REST APIs with Spring Data REST, enabling seamless integration between Java backend and Angular client
- Established a CI/CD pipeline using GitHub Actions, integrating automated testing, Docker-based building, and seamless deployment to AWS
- Leveraged Spring Data JPA to design custom query operations on the MySQL database, enabling pagination and searching
- Accomplished user authentication using Spring Security and JWT to allow customers to track order history and details

Employee Manager - Java, Spring Framework, MySQL, Hibernate, Bootstrap, Thymeleaf

- Developed a Spring MVC and Hibernate CRUD project allowing users to manage employee information
- Applied Hibernate to map POJOs to SQL entities and develop custom queries using the Hibernate Query Language
- Devised Spring MVC controllers to process web requests
- Leveraged Thymeleaf and Bootstrap to build a modern server-side view template
- Implemented Spring Security for user authentication, user registration, and custom roles

Music Social Network - C++

- Collaborated with two peers on an application recommending songs based on a user's social connections
- Implemented a binary search tree and graph to store user information and friendships between users
- Designed a BFS graph algorithm to determine if a user is within another user's social network
- Constructed a max heap data structure to extract popular songs within a users' social network

Student Registration System – Java, Oracle PL/SQL

- Built a student registration system leveraging stored PL/SQL procedures executed using Java Database Connectivity
- Employed relational database tables to design complex queries based on several parameters
- Created a CLI using Java to execute procedures such as creating/enrolling students, checking prerequisites, and more

EXTRACURRICULAR ACTIVITIES

CodePath Technical Prep Course

- Improved technical problem-solving skills by completing twelve weeks of CodePath's online learning
- Engaged with a group of peers and a mentor to solve technical coding problems through peer programming

Korean Community Services Summer School Teaching Assist

- Tutored elementary and middle school students to help improve math and literacy skills