

Jiayu Liu

▪ Jersey City, NJ ▪ j113683@nyu.edu ▪ <https://www.linkedin.com/in/jiayu-liu-023902204/>

EDUCATION

New York University

Master of Science in Computer Engineering, GPA 3.6/4.0

Sept. 2022-May 2024

New York City, NY

- **Courses:** Internet Architecture and Protocol, Data Structure and Algorithms, Computer Systems Architecture, Machine Learning, Real Time Embedded Systems, Principle of database systems

Boise State University

Bachelor of Science in Computer Science, GPA 3.7/4.0

Aug. 2018-May 2022

Boise, ID

- **Courses:** Data Structures, Design and Analysis of Algorithms, Agile Development, Operating Systems, Linear Algebra

TECHNICAL SKILLS

- **Languages:** Java, SQL, JavaScript/Typescript, Python
- **Frameworks:** Nest.js, Django, Spring Boot
- **Tools:** Docker, Git, Heroku, Postman, Maven
- **Miscellaneous:** IntelliJ, VS Code, Rest API, Oracle Data Modeler

WORK EXPERIENCE

Ra Labs

Software Engineer Intern

May 2023-Aug. 2023

New York City, NY

- Created and deployed ~5 smart contracts using **Solidity/TypeScript** enabling key feature including user-listing, transactions and real-time Ethereum payments.
- Built a **Nest.js RESTful API** with TypeORM for CRUD operations on off-chain user information stored persistently in a PostgreSQL Docker image.
- Conducted unit tests of smart contracts and the Nest.js backend services with **Jest**, achieving 90% and 87% coverage respectively. Integrated **Swagger** docs accessed over 100+ times in the team for in-browser API testing.
- Implemented **React** front-end with **Redux** for state management across 20+ components, improving the overall usability.
- Deployed the full stack QA app through Render with 99% uptime over a month, with hosted Redis and PostgreSQL instances.

Boise State University

Cybersecurity Analyst Intern

Oct. 2021-May 2022

Boise, ID

- Monitored client networks and computer systems to prevent, detect, and investigate security breaches using Stellar Cyber.

PROJECTS

Real-time One Room Chat App

Personal Project

Dec. 2023

New York City, NY

- Implemented one room real-time chat app using React with Redux and **WebSocket**.
- Implemented **JWT** for secure user authorization.
- Utilized **Spring Boot** with **Spring Data JPA** to ensure efficient server-side operations, and **Kafka** as the message queue for storing data asynchronously, to ensure scalability and reliability of the application.

Amusement Park Web App

Principles of Database Systems in-class Final project

Jan. 2023-May 2023

New York City, NY

- Designed a 20-entity database schema using **Oracle Database Modeler** for an amusement park e-commerce website.
- Built **Django** app with Django's ORM enabling essential functionalities such as CRUD operations, user, and shopping cart management.
- Implemented authentication and authorization mechanisms leveraging Django's security features.

New Hire Onboarding Application

Capstone Project with Micron Technology

Jan. 2022-May 2022

Boise, ID

- Created a new hires' training platform with **Angular** for the frontend, **C#** for the backend and **MongoDB** for the database.
- Employed **Selenium WebDriver** to test the frontend and **Postman** to test the endpoints.