

XINYI LI

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EDUCATION

Duke University

Aug 2023 - May 2025 (Expected)

M.Eng. in Electrical and Computer Engineering | GPA: 3.95/4.00

Durham, NC

University of California, Davis

Aug 2019 - Mar 2023

B.S. in Computer Science & Statistics | GPA: 3.86/4.00

Davis, CA

Relevant Courses: Data Structures, Algorithm Design, Object-Oriented Programming, Computer Architecture, Database Systems, Operating Systems, Computer Networks, Big Data Computing, Software Engineering

SKILLS

Programming Languages: Python, Java, C, C++, Rust, SQL, JavaScript, HTML5/CSS, Shell

Frameworks & Technologies: Spring Boot, React, Node.js, REST API, Redis, MongoDB, MySQL, PostgreSQL

Development Tools: Git, GitHub, IntelliJ IDEA, Visual Studio Code, Maven, Tomcat, Postman, Linux, Docker

PROFESSIONAL EXPERIENCE

ML Research Intern | Shepherd Ventures - Black Swan

May 2024 - Current, San Diego, CA

- Extracted, transformed, and loaded (ETL) daily stock price financial datasets in around 1.5 years using **Python** and **SQL** to reduce assets drawdown during black swan events.
- Built models utilizing **K-means**, **Mean-Variance Optimization**, **Davies-Bouldin score** to identify stable stocks during unpredictable market conditions, ensuring robust **data preprocessing and cleaning**.
- Increased the portfolio protection rate by 5% and extended the stability period from 4 to 12 months by implementing strategic stock adjustments and advanced **data analysis** techniques.
- Automated **ETL pipelines** to streamline **data integration**, ensuring real-time data availability and accuracy for ongoing analysis and decision-making.

Software Engineer Intern | ETH Tech

Mar 2023 - Aug 2023, Newark, CA

- Developed an online retail platform using **Java**, **Spring Boot**, and **Spring Data** in a microservices architecture.
- Engineered features for product exploration, selection, and management, utilizing Spring Data for efficient data operations across **MySQL** and **MongoDB**.
- Implemented **Redis caching** to optimize system performance, reduce response times, and ensure seamless scalability for growing user demands.
- Orchestrated deployment on **Azure** for optimized hosting efficiency and uninterrupted service availability.
- Used **Kafka** to submit the order data, a queue mechanism to transform synchronous operations into asynchronous operations, and decoupled business processes, alleviating the writing pressure of the database.

Full Stack SDE Intern | China Construction Bank

Jul 2022 - Sep 2022, Beijing, China

- Designed and implemented scalable database structures using MySQL and **backend business flow systems** with **Maven Java Spring Boot**, ensuring seamless integration between interfaces and databases.
- Maintained and enhanced the frontend functionality of financial **web applications**, collaborating with PM teams to implement **UI/UX** improvements, conducting **comprehensive automated testing** with **Postman** for product readiness and reliability.

SIDE PROJECTS

Coursework Management System

Jan 2024 - May 2024

- Built a full stack system for coursework management in **Gitlab**, integrating a web application for assessments and enrollment with a delivery and grading application using **REST API**, **Java**, **Junit Test**, and **Docker**.

Interactive Mapping Application

Jun 2024 - Jul 2024

- Developed a full stack application using **React**, **Node.js**, **Express**, **MongoDB**, and **Mongoose**, integrating **Google Maps API** for location services.
- Conducted thorough **API testing** with Postman, enhancing user experience with seamless front-end and back-end integration.