YIREN (KAREN) C.

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EDUCATION

Northeastern University Sep 2022 - Dec 2024 (Expected)
Master of Science in Computer Science (GPA: 3.6/4.0) **Boston, MA**

Shandong University Sep 2017 - Jul 2021
Bachelor of Computer Science **Shandong, China**

SKILLS

Programming Languages: Java, Python, C, C++, JavaScript/TypeScript, Go, HTML, CSS
Development & Tools: Next.js, React.js, Node.js, MongoDB, CI/CD, Redux, RESTful API, Mongoose, AWS, Firebase, JUnit, Swing, Express, Postman, Object-Oriented Design (OOD), MySQL, Git, Bootstrap

EXPERIENCE

Lyft Back-End Engineering Virtual Internship Program May 2023 - Aug 2023

- Redesigned and refactored the existing back-end architecture of Lyft's car maintenance notification system for batteries and engines using **Python**, enhancing maintainability and extensibility
- Created a robust testing suite with **unittest** framework to validate the functionality and reliability of the refactored car maintenance system, achieving **100%** code coverage for core components
- Leveraged **Test-Driven Development (TDD)** to add advanced features to extend the maintenance cycle of Spindler batteries and introduce specific maintenance criteria for tires based on wear sensor data
- Prioritized clean code practices and comprehensive documentation to facilitate easier onboarding

RELATED PROJECTS

NextAmplify Blog Platform Feb 2023 - May 2023

- Developed a high-performance blog platform using **Next.js**, leveraging its Server-Side Rendering (SSR) capabilities for optimal performance and SEO-friendliness, integrated **AWS Amplify** for backend services
- Constructed a **GraphQL API** via **AWS AppSync**, offering an flexible way to query and manipulate data
- Employed **Amazon DynamoDB** as the NoSQL database for storing blog content and user information
- Set up CI/CD pipeline using **AWS Amplify Hosting**, ensuring automatic build and deployment

Tuiter: A Full-Stack Social Platform Web App Nov 2022 - Jan 2023

- Collaborated with a team of 3 developers to build a full-stack social media application using **React.js**, **Node.js**, and **MongoDB**; deployed the application to **Heroku** and integrated the **Netlify** platform for **continuous integration and continuous deployment (CI/CD)** of the React front-end
- Designed and built the front-end UI utilizing **React.js** and **Bootstrap**, and created reusable components
- Reduced rendering time by **18%** by centralizing the app's state and avoiding prop drilling and unnecessary re-renders leveraging **Redux** to manage the state of the **React**-based web interface
- Developed **RESTful APIs** for handling user and post resources, which included creating, reading, updating, and deleting data via HTTP verbs, with **Node.js** as the primary backend technology
- Established a **MongoDB** database for storing user and post data, reduced search time by **30%** through indexing, and used the **Mongoose** library to interact with the database from the **Node.js** server

GeoChat: A Location-Aware Messaging App with Sticker Aug 2022 - Oct 2022

- Led the development of an Android messaging app using **Java** with sticker and location functionalities
- Utilized **Firebase Realtime Database** of **Google Cloud Platform (GCP)** to store information about stickers and user information, providing a cloud-based solution for efficient retrieval of information
- Leveraged **Geofencing** to support location-based service and reduced the average image loading time by **27%** by implementing an image caching mechanism by **Glide**