

Yuxuan Xiong

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TECHNICAL SKILLS

Programming	Java, Python, JavaScript, HTML/CSS, Node.js, Dart, Go, C/C++
Frameworks / Libraries	Spring, React.js, Vue.js, Next.js, Flutter, Django, Flask
Databases	MySQL, PostgreSQL, MongoDB, Neo4j, Redis
Cloud / Big Data	AWS, Netlify, Heroku, Spark, Docker, Kubernetes

WORK EXPERIENCE

Tech For Good Inc., *Software Engineering Intern* | Boston Jul 2024 - Aug 2024

- Orchestrated the frontend development of the Point Healthcare system for the Government of Tanzania Hospital, enhancing patient data security and healthcare response rate using OpenEHR-based schema and **GraphQL**.
- Engineered **Next.js** vital signs forms with **Shadcn**, ensuring a cohesive and responsive patient management interface.
- Established a **Go** test server with gqlgen and **PostgreSQL** database, boosting frontend environment fidelity and accuracy.

Geward, *Software Engineering Intern* | Philadelphia Jun 2023 - Oct 2023

- Spearheaded the frontend development of the B2C food ordering platform using **Flutter**, resulting in a 20% uptick in restaurant partnerships within 3 months.
- Designed the business-side restaurant dashboard [mobile app](#) that allows restaurant owners to modify their menu, handle dine-in/pick-up orders and organize their open hours.
- Added dynamic pricing, letting clients to identify and update prices based on the most popular items, driving revenue.
- Partnered with Product team members to conduct usability testing, based on customer feedback made design improvements resulting in a 40% increase in user engagement and a 15% boost in overall satisfaction rates.

EDUCATION

University of Pennsylvania, Philadelphia Sep 2022 - May 2024

Master of Computer and Information Technology, GPA: 4.00/4.00

University of Pennsylvania, Philadelphia Sep 2019 - May 2022

Master of Architecture, GPA: 3.95/4.00

PROGRAMMING PROJECTS

Regegs Search Engine – *Find the most relevant and diverse websites for your search terms* Apr - May 2024

- Developed a distributed computing system in **Java** to crawl, index, and rank over 1 million pages from a comprehensive seed list, using **TF-IDF**, PageRank and n-gram algorithms to boost relevancy and diversity of search results.
- Built a robust webserver with **RESTful APIs** for autocomplete, result fetching and preview, based on an open-source English corpus and cached content from 1 million pages, improving user experience when navigating through results.
- Deployed key-value store on 12 **AWS EC2** nodes for distributed computing, reducing multi-term query time by 80%.
- Articulated snippet generation using **OpenNLP** by extracting the most relevant sentences that contain the search terms, enhancing user's understanding of the page content.

Disney World Planner - *Optimize your trip for preferred climate, favorite ride availability, and flights* Oct - Dec 2023

- Developed an interactive itinerary recommendation system using **React** and Material UI.
- Engineered a **Node.js** backend with **RESTful APIs**, tailored user experience by dynamically querying based on preferences.
- Deployed a **MySQL** database on **AWS EC2**, enhanced with NumPy and Pandas for data analysis of over 6 million data points, organizing ride and climate data to support itinerary planning.
- Reduced processing time by 90% through SQL index and query optimization.

Tennis Reservation System - *A web application allowing students and staff to book tennis courts* May - Aug 2023

- Developed a **Spring Boot** backend with **RESTful API** endpoints for user and court management.
- Established robust authentication and authorization by leveraging **Spring Security**.
- Crafted an intuitive frontend with **React** and Material UI, featuring an interactive calendar for court reservations.
- Optimized the reservation system with real-time court availability updates and automated confirmation emails.