

Xiaobo Qian

Northeastern University

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TECHNICAL EXPERTISE

- +++ Java, TypeScript
- ++ HTML, CSS, React, Redux, Angular, NodeJS, Java Spring, PostgreSQL, C++, C, Git
- + Racket (Lisp), Python, MongoDB

OTHER SKILLS

Microsoft Office, Adobe Photoshop, Adobe Illustrator, Autodesk CAD, McNeel Rhinoceros

PROJECTS

Hotel Management Application (CPSC 304) [Link](#)

09/2020 – 12/2020

- Design **ER diagram** for room reservations, check in/out and room management.
- Implement SQL queries, including CRUD operations and nested aggregations.
- Frontend is built with **Angular**, implementing calendar layout GUI for management
- Backend is built with **Java Spring Boot** and **PostgreSQL**

Circles Social Application (CPSC 4361)

04/2020 – 08/2020

- In charge of the chat function, using **React** to implement **WebRTC** video chat function, WebSocket reconnections and heartbeat check, RSA and AES messages encryption for safety, unread messages reminders and responsive UI for mobiles.
- Backend is built with **NodeJS** and **MongoDB**, using AWS storage for images
- Session-based authentication, use Elasticsearch in recommendation system
Working under Scrum Agile Development in a team of four people

Campus Explorer (CPSC 310)

01/2020 – 04/2020

- Web application for retrieving data of campus with complex queries. (e.g., transform frontend multiple selections into nested queries in JSON format)
- Backend is built with **NodeJS** to parse HTML files into serialized JSON based database. Parse JSON queries with AST and implement the data querying process, including validating queries and retrieving data from serialized files with consistency checking.

Collaboration Whiteboard

09/2019 – Present

- Java project with GUI in **Java Swing** allowing users to draw and analyze existing building plans (working towards a multi-user collaboration application with **python**)
- Use the DFS search to calculate the shortest path and display the path dynamically.
- Retrieve climate data and map data from Internet APIs and parsing with regex.

EDUCATION

Align Master in Computer Science

Northeastern University (Seattle/Remote)

2021 – Present

Second Bachelor of Computer Science Program, BCS

University of British Columbia, Vancouver

Courses: algorithms, computer system, database, networks, software engineering, machine learning

2019 – 2021

Bachelor of Architecture, BArch

Tianjin University, Tianjin, China

WORKING EXPERIENCE

ARCHITECT, *East China Urban Architectural Design & Research Institute, Shanghai, China*

- Use Grasshopper and C# optimizing geometries, saving cost more than 2,500,000 RMB.