

Yuxuan Qin

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EDUCATION

Northeastern University, Boston, United States, **GPA: 4.00/4.00**

Sep. 2023-Jun. 2025

- *Master of Science* in Computer Software Engineering
- Core Curriculum: OOD, Data Structure & Algorithm, Linux, Operating Systems, Distributed Systems, Multithreaded Programming

University College London, London, United Kingdom, **GPA: 69.4/100**

Sep. 2022-Aug. 2023

- *Master of Science* in Digital Information Study
- Core Curriculum: Database Theory and Practice, JavaScript Programing, Natural Language Processing, Data Visualisation & GIS

Central China Normal University, Hubei, China, **GPA: 3.77/4.00**

Sep. 2018-Jul. 2022

- *Bachelor* in Network and New Media

TECHNICAL SKILL

- Languages: **Python**, **Java**, R, JavaScript, Golang, Scala, C, C++, MATLAB, SQL
- Frameworks & Platforms: Express, Postman, **React.js**, **Node.js**, **AngularJS**, Ant Design, Spring Boot, Redux, Flask, Django, Bootstrap, Linux, Android, Android Jetpack, **Kotlin**, iOS, AWS EC2, Amazon S3, Google Cloud Platform, GAE, **Docker**, Git, Azure
- Database & Tools: NoSQL, MySQL, **PostgreSQL**, **AWS RDS**, GCS, MongoDB, Redis, Cassandra, Room, Apache Tomcat, Axios, AJAX, Mongoose, Stata, Tableau, Apache Kafka, Elasticsearch

PROFESSIONAL EXPERIENCE

Lloyd's Register Foundation, Heritage & Education Center

London, United Kingdom

Software Engineer

Apr. 2023-Jun. 2023

- Spearheaded the "Maritime Safety Evolution" project, orchestrating the extraction, aggregation, and analysis of historical data for over 300 British vessels from the Victorian era
- Engineered a **PostgreSQL** database to meticulously catalog details such as ship names, maintenance, and decommissioning years
- Developed a **RESTful API** using Spring, enabling dynamic data retrieval by ship name, date, and company
- Utilized **QGIS** for creating GIS maps, marking information such as construction/maintenance locations, companies, and final ending
- Crafted an interactive web with **React** and **Node.js**, showcasing research outcomes and maps, improving data visibility and interaction

PROJECT EXPERIENCE

GourmetHub: Secure & Scalable Online Food Ordering Solution

- Developed **CRUD RESTful API** using **Spring Controllers**, enabling functionalities such as registration, ordering and checkout
- Leveraged **Spring Data JDBC** and repositories to interface with a **PostgreSQL** hosted on **AWS RDS**
- Fortified the application with **Spring Security**, implementing session-based authentication mechanisms
- Architected the project with a clear separation of controller, service and repository layers, utilizing dependency injection
- Constructed the frontend with **Node JS**, **ReactJS** and **Ant Design**, creating an intuitive user interface for cart and order management
- Containerized the application using **Docker**, and pushed it to **AWS ECR**, successfully deployed the application on **AWS AppRunner** for streamlined scalability and accessibility (<https://caywnbgmbe.us-east-2.awsapprunner.com>).

EchoSphere: A Next-Gen Cloud-Powered Social Platform

- Engineered a social networking platform utilizing **Golang & React**, developed features enabling content creation and exploration
- Enhanced authentication processes through token-based mechanisms, integrating **React Router v4** and **JWT**
- Deployed a robust web service capable in **Go** to handle voluminous posts, utilizing **Google Cloud** for optimal scalability
- Implemented **Elasticsearch** within **Google Cloud Environment (GCE)** to offer advanced post search capabilities, including querying recent activities and personal content listings, as well as using Google Cloud Storage (GCS) as a **NoSQL** storage for images and videos.
- Deployed the web service successfully on **GAE(backend)** and **AWS(frontend)** (<https://dev1820.d2jcpb04vj5jgc.amplifyapp.com>)

PDF IntelliFlow: AI-Driven Document Management Platform

- Developed an interactive UI with **React** and **Ant Design** for a conversational agent, enabling real-time PDF document manipulation
- Engineered **RESTful APIs** with **Express** and **Node.js** for efficient network communication and high-performance request processing
- Implemented an in-memory vector store for caching embeddings, optimizing the system for quick data retrieval
- Incorporated **OpenAI's GPT-3.5/GPT-4 API** and **Langchain** technologies to build a sophisticated AI agent that manages document operations including loading, splitting, storage, retrieval, and various output capabilities

RhythmPulse: Your Personalized Music Hub

- Designed a **Kotlin** Spotify favorite app by fully leveraging **Android Jetpack Library** and **Hilt Dependency Injection**
- Utilized **Jetpack Navigation** for intuitive interface and **Retrofit** for efficient API interactions, paired with a custom **RESTful** service
- Designed and built the feed/album/favorite UI in **Jetpack Compose** following **MVVM** architecture
- Implemented local caching for favorites feature using **Room Database** to enhance data retrieval efficiency
- Integrated the **Google Exoplayer** to handle the global music playback

SocialSight: Harnessing Social Sentiment for Real Estate Market Predictions

- Leveraged **Python** packages for word segmentation and sentiment lexicons based on word-frequency design on a dataset of over 18,000 Weibo comments from 2020, and employed **R** to create dynamic word cloud maps, visually representing key data trends
- Developed and fine-tuned **Decision Tree and Random Forest models** to assess the predictive influence of social media comments on housing prices. Achieved a high accuracy of 84% with the Random Forest model, indicating a robust predictive capability