

Yangtao Ge

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ACADEMIC INTERESTS

I am interested in software engineering with focuses on bug diagnosis, log analysis and performance issues for large scale open source system. I currently investigate fuzzing techniques on GPU devices. I am also interested in software engineering architecture design such as creating continuous CI/CD process and cloud services. I target to become a academic researcher on software engineering security but with more relations to industrial practices.

EDUCATION

- **University College London** London, UK
Master of Engineering (MEng) in Computer Science; Avg. Score: 74/100 *Sept. 2018 – Present*
- **University College London** London, UK
Undergraduate Preparatory Certificate; Avg. Score 86/100 *Sept. 2017 – June. 2018*

PERSONAL SKILLS

- **Java:** Excellent skills in building server-based applications by using Java including Netty protocol server developing and Spring Boot web server developing over actual production environment in large scale projects.
- **Golang:** Good understanding of Golang and experiences of developing microservice backend RESTful API using Gin framework
- **React Native:** Proficient developing using React Native and Redux to implement mobile app for both Android and IOS Platform and creating releases using TestFairy.
- **JavaScript, TypeScript & Node.js:** Good understanding of JavaScript and its extension language and able to use those languages to create both backend (Express) and frontend (React.js).
- **Dockerization and Cloud Services:** Industrial experiences in both Azure and AWS in web server and database services, and experience of dockerizing web servers as images and deploy CI/CD pipeline
- **Git & Verison Control:** Good knowledge of using git and Github to do local and remote version control.
- **SQL & NoSQL:** Good knowledge in managing SQL databases on Java Spring Boot using JPA and using node.js to manipulate NO-SQL database such as AWS DynamoDB using Node.js.
- **Other Programming Languages:** C/C++, Python, Haskell, Shell, C#, L^AT_EX.

WORK EXPERIENCE

- **R3** London, UK
Support Engineer *June. 2021 - Sept. 2021*
 - **Kotlin & Java:** Using Kotlin and Java to implement a framework using Intel SGX confidential computing enclave to safely match data from different clients
 - **Conclave:** Contributing to the Conclave example codebase and is used for current commercial sale process
 - **Corda Certificatied:** Qualified from both internal examination and certification examination
- **Healios** London, UK
React Native Developer *Dec. 2020 - Jun. 2021*
 - **React Native:** Using React Native Framework and TypeScript to develop a NHS app called *ThinkNinja* for children from 10 to 18 years old and allow them to learn mental health and emotional wellbeing.
 - **TypeScript & Linting:** Using and configuration TypeScript and Eslint to ensure the robustness of the code across the developing team.
 - **Redux and Redux-Saga:** Using Redux to maintain and transient the app state and using Redux-Saga as the Redux middleware to handle the side effect of the application.
 - **Internationalization:** Implementing the internationalization framework to support multiple languages and creating the customized Text component which allow other developers to use them as international language label and replace the display in configuration files.

- **TestFairy:** Using and maintaining the TestFairy tool to provide app distribution within the developing team and create continuous integration pipeline for app build.
- **EMIS Health Group** London, UK
Analytic Team Software Developer *Jun. 2020 - Sept. 2020*
 - **Node.js and TypeScript:** Using Node.js to produce a middleware to generate a many-to-many mapping between two service components within the EMIS Clint project and publish it onto the company code base.
 - **API Platform:** Creating and deploying the internal-used API onto Amazon Serverless services and implementing the Jest test to ensure the robustness from high coverage test suit.
 - **AWS Cloud Services:** Using AWS CloudFormation to maintain DevOp pipelines and DynamoDB schema for the project on the cloud, AWS IAM strategies are used for ensuring the minimum access control.
- **Skogame Ltd.** Shanghai, China
Mobile Gaming Backend Developer *Jul. 2019 - Sept. 2019*
 - **Java Web Server on Netty:** Developing the logic of Top-up function with its API which allows player can charge money to buy game currency and Developing other related time-limited top-up activities.
 - **Unit & Integrate Testing:** Developing a robot-user sample and a Tester app for testing the maximum capacity and vulnerability of the game server.
 - **Databases:** Maintaining the two online servers and inspect both MySQL and Redis databases to ensure the working performance of the game server.

PROJECTS

- **Ophidia Technologies: Smart Label Project** London, UK
Tech Team Leader & Full stack developer
 - **Architecture Design:** Leading the software engineering team with 3 members and design the software architecture for the full stack application for smart e-ink label.
 - **Dockerization and Cloud Integration:** Dockerize the backend API as docker image and create a CI/CD pipeline for continuous development onto AWS cloud service
- **AMEX Challenge Hackathon** London, UK
Full Stack Developer *Best Design Prize*
 - **Mobile App Developing:** Using React Native including google map components and redux design to create a mobile app for 'ShopSmall' schema for helping both customer and partner shops.
 - **Architecture Designing:** Designing and developing the backend API server in Express framework using Node.js and add authentication token to api request for data security.
- **AI For The Common Good Hackathon** London, UK & Paris, France
Frontend Developer & Team Leader *Top 3 Project Prize*
 - **Project Structure Designing:** Making the project brief and MoSCoW list for making a mobile web app for feeding language learning materials based on users' preference and chatting between other learners.
 - **Frontend UI Developing:** Developing the user interface using React.Js and Framework7 to make a Progressive Web App (PWA) for mobile phones and deploy on remote web servers.
- **Visual Mapping App for ANCSSC** London, UK
Backend Developer *Score: 73/100*
 - **API Provider Developing:** Using Java Spring Boot to provide APIs for the frontend to obtain the NGOs' project coordinates and specific information of the project on Azure Web Server.
 - **Server Deployment:** Use Azure Web Server to deploy the API provider of the tool and initializing the Azure Pipeline to execute auto deployment.
- **Connecting System IoT Project** London, UK
CC3200 Board Developer *Score: 90/100*
 - **System Architecture:** Creating the System Architecture on TinkerCAD and Fritzing to implement a system to detect whether the door is opened and report remotely.
 - **IBM Cloud:** Using IBM Cloud Internet of Things Platform to create a service to receive data from CC3200 by implementing a MQTT protocol and display the data using a website created by JavaScript.