Yangtao Ge

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EDUCATION

- **University College London** — London, UK
  Master of Engineering (MEng) in Computer Science; Degree Award: First Class Honours — *Sept. 2018 – Sept. 2022*

- **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 using Java and related frameworks including Netty protocol, Spring Boot and gRPC protocol 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.

- **JavaSript, TypeScript & Node.js**: Good understanding of JavaSript 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 Google Cloud, Azure and AWS 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#, LaTeX.

RESEARCH EXPERIENCE

- **Fuzz Testing for DPC++** — London, UK
  Individual Project Researcher — *Score: 70/100*
    - **Fuzzing Framework**: Write a dissertation to propose the first fuzzing framework for DPC++ and create a dataset to benchmark the testing framework effectiveness.
    - **LLVM & Clang**: Implement the testing framework under LLVM compiler infrastructure and use Clang LibTooling API to instrument target program automatically on AST level.

- **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 continues development onto AWS cloud service

- **AMEX Challenge Hackathon** — London, UK
  Full Stack Developer — *Best Design Prize*
    - **Mobile App Developing**: Use 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**: Design and developing the backend API server in Express framework using Node.js and 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**: Make the project brief and MoSCoW list for making a mobile web app for feeding language learning materials materials based on users' preference and chatting between other learners.

- **Frontend UI Developing**: Develop 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: 76/100*
  - **API Provider Developing**: Use 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.

WORK EXPERIENCE

- **Smartsheet** London, UK
  Software Engineer *Jan. 2023 - Present*
  - **Golang Microserivces**: Develop backend API services using Golang CHI framework to support the sheet to get cell history data from S3 bucket.
  - **Data ETL**: Develop and maintain a service in Golang running on ECS clusters on a schedule to migrate data from relational Database to parquet files stored in S3 bucket.
  - **Terraform for AWS Infrastructure**: Design and use Terraform to create required infra such as S3, ECS clusters, SQS queues and telemetry services and using Terragrunt to deploy them onto different environments.
  - **GitLab CI/CD Pipeline**: Create a deployment pipeline in GitLab which run through the validation steps and deployed to ECS clusters when triggered.

- **Spotify** London, UK
  Backend Engineer *June. 2022 - Sept. 2022*
  - **Microserivces with gPRC**: Develop backend API services using internal Apollo framework and gRPC to support music providers and Spotify operatives for accelerating music delivery.
  - **Testing Improvement**: Write technical document which suggests possible testing improvements for the squad and improve the code coverage from 75% to 90%.
  - **Slack Workflow Integration**: Implement a message notification workflow in Slack to notify Spotify operatives the status changing of their stakeholders.

- **R3** London, UK
  Solution Engineer *June. 2021 - Sept. 2021*
  - **Kotlin & Java**: Use Kotlin and Java to implement a framework using Intel SGX confidential computing enclave to safely match data from different clients.
  - **Conclave**: Contribute 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 & TypeScript**: Use 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.
  - **Redux and Redux-Saga**: Use 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**: Implement 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 continues integration pipeline for app build.

- **EMIS Health Group** London, UK
  Analytic Team Software Developer *Jun. 2020 - Sept. 2020*
  - **Node.js and TypeScript**: Use 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**: Create 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**: Use 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.