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

PROFESSIONAL SUMMARY

Accomplished Backend Software Engineer with two years of full-time experience at Smartsheet, enhanced by internships at Spotify and R3. Specializes in building and managing microservices on AWS platforms like EKS and ECS, and proficient in developing robust CI/CD pipelines and infrastructure solutions with Terraform. Currently a Software Engineer II, I manage and own key services from inception to deployment, collaborating effectively with cross-functional teams. Committed to broadening my software engineering expertise while deepening my specialization in cloud infrastructure and security, I am actively developing into a T-shaped professional with comprehensive knowledge and deep technical skills

PERSONAL SKILLS

- **Programming Languages**:
  - **Java**: Proficient in building scalable server-side applications using Spring Framework and Gradle.
  - **Golang**: Proficient in building concurrent applications, primarily for microservices using Chi and Gin frameworks.
  - **Python**: Skilled in scripting and automation, as well as backend development with AWS Lambda.
  - **Other Languages**: C/C++ (Competent); JavaScript (Proficient); SQL (Proficient)
- **Cloud Platform & Tools**:
  - **AWS**: Experienced with EC2, SQS, S3, and Lambda for cloud-based applications building with `terraform`
  - **Docker**: Strong capabilities in containerization and version control of deployment environments.
  - **Kubernetes & ECS**: Proficient in orchestrating and managing containerized applications in AWS EKS and ECS
- **DevOp & Analytic**:
  - **GitLab/GitHub**: Proficient with git for version control and building CI/CD pipelines.
  - **OpenSearch**: Implemented for search and log analysis solutions using Fluentd in containerized environments.
  - **Datadog & Grafana**: Proficient in building interactive dashboards for real-time data visualization and analytics.

WORK EXPERIENCE

- **Smartsheet** — London, UK
  Software Engineer II — Jan. 2023 - Present
  - **Golang Microservices**: Developed backend API services using the Golang CHI framework to facilitate access to cell history data from an S3 bucket. Optimized data retrieval processes by implementing parallel fetches with goroutines, enhancing performance by 20% on P95 latency measures.
  - **Analytic Tool Integration**: Integrated FluentD as a log layer to streamline the delivery of application logs to OpenSearch via AWS Kinesis Stream. Developed and implemented a Datadog dashboard for real-time data visualization, significantly enhancing incident response times by enabling quicker issue identification.
  - **GitLab CI/CD Pipeline**: Implemented deployment pipelines using GitLab Runner for automated validation and promotion of container images. This initiative accelerated the team's development cycle by 50%, improving deployment efficiency on AWS ECS clusters.

- **Spotify** — London, UK
  Backend Engineer Intern — June. 2022 - Sept. 2022
  - **Java Microservices**: Developed backend microservices using the Apollo framework and gRPC, which enhances music delivery processes and service efficiency for both music providers and Spotify operatives.

- **Testing Enhancement**: Authored technical documentation outlining key strategies for testing improvements, which was instrumental in increasing code coverage from 75% to 90%, substantially boosting application reliability
- **Operational Integration**: Engineered a Slack notification workflow that automatically informs Spotify operatives of stakeholder status updates, enhancing operational communication and responsiveness.

- **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 the current commercial sale process.
  - **Corda Certification**: Qualified from both internal examination and certification examination.

- **Healios** London, UK
  React Native Developer *Dec. 2020 - Jun. 2021*
  - **React Native Development**: Paticipate into the development of "ThinkNinja," an NHS-affiliated app for educating children about mental health, using React Native and TypeScript. Implemented multi-language support to enhance accessibility and user engagement.
  - **Code Quality and Efficiency**: Enhanced code robustness and maintainability by integrating TypeScript and ESLint, and improved development processes by configuring Redux for state management and Redux-Saga for asynchronous operations.
  - **Continuous Integration and Testing**: Intergate the TestFairy tool to streamline internal app distributions and implemented a continuous integration pipeline that reduced deployment cycles by 30%, enhancing team productivity and app reliability

- **EMIS Health Group** London, UK
  Software Engineer Intern *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 implement 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.

PROJECTS

- **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 frameworks effectiveness.
  - **LLVM & Clang**: Implement the testing framework under LLVM compiler infrastructure and use Clang LibTooling API to instrument the target program automatically on the AST level.

- **Ophidia Technologies: Smart Label Project** London, UK
  Tech Team Leader & Full stack developer
  - **Architecture Design**: Lead 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 a docker image and create a CI/CD pipeline for continuous development onto AWS cloud service

- **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 based on users' preferences and chatting with 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 it on remote web servers.