

Boyu Yang

SOFTWARE ENGINEER

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Education

University College London

London, United Kingdom

B.S. in Computer Science

Sep 2021 - Jun 2024

- GPA: 73.47%
- Courses: Algorithms, Computer Architecture and Concurrency, System Engineering, Software Engineering, Security

Skills

DevOps	Docker, Kubernetes, CI/CD, AWS
Web Development	Vue, React, Node.js, Spring framework, GraphQL
Databases	MySQL, Postgresql, MongoDB, Redis
Languages	Node.js, Python, Java, Swift, Bash, Go, C/C++
Strength	Data Modeling, Software Development Teamwork, System Design

Experience

UCL Department of Computer Science

London, United Kingdom

Programming Tutor

Sep 2022 - Present

- Actively organize weekly tutorials and maintain ongoing Q&A sessions for students with weak programming skills.
- Proactive individual counseling for students experiencing academic frustration.
- Students improved their marks in programming assignments by 30% under my tutoring.

Beijing Zhizhangyi Technology co., ltd

Beijing, China

Software Engineer

Jun 2021 - Sep 2021

- Led team of 3 interns to build a powerful and developer-friendly Java testing framework for the testing team.
- Under mentor's guidance, inversion control techniques were used extensively when architecting the software and were highly praised by the technical leader.
- Making use of Java's reflection feature creatively in the development of the unit test module, which reduces the amount of template code by 30% and greatly improves the development efficiency.
- The framework was widely used in testing SaaS software products, enabling the team to deliver high-quality software on time.

Projects

UCL CS PGTA recruitment system

Jun 2022 - Present

- Designed and build a full-stack web application for managing postgraduate teaching assistant (PGTA) recruitment.
- Learn and build GraphQL API in 1 month and eliminated 80% of potential React bugs by adapting GraphQL type-safe features.
- Independently developed GraphQL Query to SQL projection module, improving data query performance by more than 12%, while cleverly solving GraphQL's N+1 problem.
- Proactive communication with project leader and design of a scalable and efficient database model.
- A user-friendly UI was carefully crafted and endorsed by all professors during the testing session.
- The system has successfully replaced the previous spreadsheet-based PGTA management approach and has improved efficiency by twice.
- The system is used by up to 300 professors with PGTAs and has improved administrative efficiency by 50%.

CommnRoom Mobile App

May 2022 - Sep 2022

- Actively involved in the design and development of a student social platform app, a UCL-sponsored start-up project.
- Led the entire back-end team in migrating the PHP technology stack to Node.js, eliminating up to 60% of the business logic bugs and greatly improving development efficiency.
- Routinely organize weekly slack meetings to discuss new features of the app and proactively review code from the GitHub development branch to ensure code style and quality.
- Built and deployed overall service infrastructure utilizing Docker container, CircleCI, and amazon ECS, focusing on high availability and auto-scaling.

Logic Teaching Software

Feb 2022 - Apr 2022

- Led a team of 4 developers to design and develop a logic teaching software for the teaching of first-year students.
- Pioneering use of a custom graph data structure that cleverly relates UI logic to data structures, and it is used extensively in software development.