Joven Pua Zai Xiong

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Education

National University of Singapore   Aug 19 - Jun 23

Bachelor of Computing (Hons), Computer Science

- **Relevant Coursework:** Software Engineering, Software Testing, Database Systems, Parallel Computing

Technical Skills

- **Programming Languages:** Java (Proficient), JavaScript, HTML/CSS, C/C++, Python
- **Frameworks:** NodeJS, Spring Boot, Spring Data JPA, Spring MVC, React, React-Redux, Android, Flutter, Junit
- **Databases:** PostgreSQL, MongoDB, MySQL
- **Others:** Git (Proficient), AWS, Docker, Linux, Redis, Kafka

Work Experience

Dateideas Pte Ltd   Mar 23 - May 23

Freelance Fullstack Developer

- Developed a web form in a team of 3, for users to submit personal information in exchange for free products from business partner(s), with React.
- Implemented a web application for the client to download aggregate user data from the submitted web form, and perform administrative actions, with ElephantSQL for data entries and AWS S3 for images of client's business partners' logo.
- Implemented a RESTful backend application to support client requirements for both the web form and web application, using NodeJS, as well as Twilio APIs for OTP verification via Whatsapp.

Robosolutions Pte Ltd   Jun 21 - Nov 21

Software Engineer Intern

- Developed an Android application on the Temi robot with Java to automate food delivery and patient escorting at a medical clinic by allowing staff to select a seat/room number on Temi, to reduce manpower costs for the clinic.
- Developed another Android application on Temi to provide concierge services such as listing nearby dining options, calling relevant staff by purpose of visit or name, to enhance visitor experience of client's visitors.
- Communicated with clients of the 1st application to gather further requirements for customising the application, to handle food delivery and patient escorting for different clinic layouts.

Projects

PollAndVote   Aug 23 - Sep 23

- Developed a web application that allows users to create polls and vote on them, built with Spring Boot, React, CSS, MySQL on AWS RDS, and deployed frontend on AWS S3 with an AWS Cloudfront distribution.
- Implemented a CI/CD pipeline using AWS CodeBuild/CodePipeline to automate the entire process of building Docker images upon changes in the repository for backend, pushing the image to AWS ECR and deploying it as an AWS ECS service.

JovenGrabsFood   Jul 22 - Ongoing

- Developed a MERN & PostgreSQL-based web application simulating a food delivery platform, enabling users to act as merchants, consumers, or deliverers, with features like item creation, order selection, and customizable sections/options.
- Implemented a real-time system to show orders available for deliverers to choose from, to prevent deliverers from selecting orders that have already been chosen by other deliverers recently.

Shell Software Testing   Feb 23 - Apr 23

- Designed unit tests with JUnit for a Java application mimicking a Linux shell for a software testing school project, using TDD, achieving as much as 100% statement coverage, 86% branch coverage, and zero bug reports during grading.
- Designed integration tests using pairwise testing to cover a significant proportion of relevant inter-class interactions while keeping the test suite maintainable in size.

MeetCode   Aug 22 - Nov 22

- Implemented a microservice responsible for matching users looking for the same problem difficulty, in a web application that allows users to collaborate on programming problems, using Sequelize with PostgreSQL, NodeJS, and SocketIO.

QuerIt   Jun 20 – Aug 20

- Innovated a software idea with a friend, to help shy students who are too afraid to ask questions during a lecture to lecture-mates, by allowing users to ask questions and post replies anonymously in chatrooms if they are within the room's set radius.
- Transformed the idea into a mobile application, with Flutter and Firebase, by allowing users to create a room centered on their geographical coordinates, setting a room radius, and see which rooms they can join depending on their location.
- Employed geolocation APIs for the application to function properly, to prevent users from joining a chatroom that they are not within the radius of and possibly post irrelevant questions/replies.
- Implemented a voting feature for questions/replies so that questions in the chatroom can have their visibility adjusted based on the usefulness and/or relevance of the question/reply.

Additional Information

- **Languages**: English (Fluent), Chinese (Intermediate); Korean (Basic)