Yong **Zhi Yuan**

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Education

National University of Singapore (NUS)   *Singapore*

BACHELOR OF COMPUTING (HONOURS) IN COMPUTER SCIENCE
                                                                                              Aug. 2015 - Dec. 2018
FOCUS AREAS: SOFTWARE ENGINEERING, COMPUTER SECURITY

- CAP: 4.45 / 5
- Achieved A+ grade for the following modules: Data Structures & Algorithms, Design & Analysis of Algorithms, Software Engineering, Thematic Systems Project

Programming Knowledge & Skills

Competencies   Design Patterns (particularly MVC), Git, iOS, Java, JUnit, Swift
Familiar with   Android, Continuous Integration (Travis CI), Gathering User Requirements, Gradle

Work Experience

Housing & Development Board (HDB)   *Singapore*

SOFTWARE ENGINEER INTERN   *May. 2018 - Aug. 2018*

- Evaluated an existing mobile application used by inspectors to carry out site inspection.
- Gathered User Requirements and frequently tested prototype with users.
- Redesigned the key workflow (performed 60 - 80 times daily per inspector) of the mobile application, reducing the number of steps required to perform this workflow from 8 to 3. Also redesigned the User Interface to be compatible with this improved workflow.
- Redesigned existing User Interface, thereby reducing the number of keystrokes required to perform 2 other workflows from 8 to 2 and 7 to 2. Also enhanced existing features, thereby reducing the number of keystrokes required.
- Suggested new features and designed the corresponding User Interface.
- Automated the monthly generation of inspection schedule, reducing the amount taken to generate the schedule from 1 day to 15 minutes.

National University of Singapore - Open Source Software (NUS - OSS) (10k LoC, 1k commits)   *Singapore*

SOFTWARE ENGINEER INTERN   *May. 2017 - Aug. 2017*

- Worked on Addressbook-Level4, a Java application used to teach NUS Computer Science (CS) students about Software Engineering. This is a compulsory module for all NUS CS students. As a result, this project demands high standards of code quality, and working on this project taught me how to write quality code, and I became familiar with Software Engineering patterns.
- Mentored a student under the Google Summer of Code program and guided new contributors by discussing with them on how to improve on the existing code architecture and reviewing their code.
- Wrote missing unit, integration and system tests, increasing test coverage from 90% to 92%.
- Designed and wrote code to implement new features such as allowing the user to undo and redo their actions.
- Continued contributing after the internship stint till today. Estimated contribution: 14.4k LoC changed, 90 PRs merged

NUS   *Singapore*

TUTOR - PROGRAMMING METHODOLOGY   *Aug. 2016 - Nov. 2016*

- Taught a class of 12 undergraduate students on fundamental concepts of problem solving using C language, on a weekly basis. Also assessed their understanding & provided feedback for improvement.
- Achieved Overall Teaching Effectiveness Score of 4.40 / 5

Projects

Train to Changi   *Singapore*

NUS   *Mar. 2017 - May. 2017*

- Developed an interactive, algorithmic puzzle game on iPad in a team of 4. Users who have no prior exposure to algorithmic thinking will gain some understanding of algorithmic thinking and how coding works.
- Designed and wrote code for the front-end components such as game logic and model, according to the Model-View-Controller architecture.
- Wrote multi-threading code.

Wut 2 Do?   *Singapore*

NUS   *May. 2016 - Aug. 2016*

- Developed an Android mobile application with a partner, which help users to locate entertainment activities near them.
- Used Google API and self-learnt programming languages (PHP, SQL).

Cocurricular Activity

Exercism

Committer
Jan. 2018

- Exercism aims to help users improve their programming skills in many different languages through writing code and submitting it to Exercism for feedback.
- Suggested improvements for existing suite of test cases and updated these test cases. Users attempting these exercises will now have a cleaner suite of test cases to refer to.
- Implemented the model answer and the tests for an algorithmic exercise. Users are now able to attempt this new exercise.

Microsoft Azurenaut Hackathon
Singapore

Participant
Jan. 2017

- Created a chatbot in a team of 3 that provides information about NUS, such as the estimated arrival times for the next bus and the availability of car park lots. This project aims to integrate existing mobile applications such as NUS Carparks and NUS NextBus into a single application.

Edusave Awards for Achievement, Good Leadership and Service (EAGLES)
Singapore

Temasek Junior College (TJC)
2012

- National Inter-school Wushu Championships 3rd and 4th position
- Performer in National Day Parade
- Class Chairperson: 2011 - 2012

Other Information

Technical Talks Gave technical talks on Garbage Collection & Safeguarding your code from Memory Leaks as part of coursework.

Technical Writings Updated existing material on Java Reflections & Introduction to Swift as part of coursework.

Hobbies Playing the guitar, doing photography, reading non-fiction books.