

# JOEL NG YI XIAN

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## EDUCATION

National University of Singapore

Aug 2019 – June 2023 (Expected)

*Bachelor of Engineering (Hons), Computer Engineering,*

- Current Cumulative Average Point (CAP): 3.96 / 5.0
- Technical skills:
  - ❖ Programming Languages: JavaScript, HTML, CSS, Java, PostgreSQL, Python, C, C++, Dart
  - ❖ Libraries/Frameworks/Tools: React JS, Bootstrap, Flutter, Git, GitHub, Firebase, Figma, Microsoft Excel

## INTERNSHIP EXPERIENCE

Thales Solutions Asia

May 2021 – Nov 2021

*Software Development Intern, Integrated Supervision & Control System Solutions Department*

- Worked on the Replayer Project, an application that facilitates the simulation of track activity on the North-East Line.
- Developed the Graphical User Interface (GUI) and the middleware for the Replayer Project using Python and C++ respectively.
- Performed testing for the Replayer Project on the Man-Machine Interface (MMI) and SCADAsoft, a multi-domain Supervisory Control and Data Acquisition (SCADA) software application developed by Thales.
- Worked in an Agile environment, with use of Jira (an issue-tracking tool) and participating in sprints.

Tusitala Books

May 2022 – Present

*Web Development Intern*

- Contributed to the development and maintenance of multiple microsites and web applications for the company's clients. Some of these projects include Esplanade's online series, Little Red Comma, and the Singapore Heritage Fest's Book Trips microsite.
- Programmed with languages such as HTML, CSS, JavaScript, and libraries/frameworks such as React JS, Bootstrap, Web Audio API, and A-Frame.
- Worked closely with designers, editors, and clients, and participated in the contribution of ideas for proposals and projects.

## ACADEMIC PROJECTS

*CP2016: Independent Software Development Project*

*Flutter, Firebase, Github*

- Built an Android application on which users can create chatrooms that can be joined by other users in the vicinity.

*CS2113T: Software Engineering and Object-Oriented Programming*

*Java, Git*

- Built a CLI-application using Java, targeted at university students, with the purpose of making the learning of programming concepts more engaging.
- Applied various programming principles such as Single Level Abstraction Principle and Object-Oriented Programming, and software development practices such as coding standards, unit testing and version control with Git.

### *CG4002: Computer Engineering Capstone Project*

*C++ (Arduino), Python*

- The objective of the project was to develop a laser tag system, which involved hardware sensors, hardware AI, and an AR mobile application.
- Was responsible for establishing and maintaining Bluetooth connections between the Bluno Beetles (which were attached to hardware sensors) and the users' laptops (which ran the game's logic and transmitted information to other parts such as the mobile application).

## **PERSONAL PROJECTS**

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### *Tune-About*

*React JS, Bootstrap, Reddit API, iTunes Search API*

- A web application that returns lyrics, relevant Reddit posts and other information related to a given song.

### *Text-Laundry*

*React JS, Bootstrap*

- A web application where users can create their own regular expressions (RegEx) to edit text accordingly.

### *Browser-Garage*

*React JS, Bootstrap, Web Audio API*

- A web application where users can play, record, and download soundtracks in .webm format.

## **CO-CURRICULAR ACTIVITIES**

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### *National University of Singapore*

*Sept 2020 – Dec 2021*

### *Publicity Manager of Arttero (a visual arts interest group in NUS)*

- Responsible for the interest group's social media presence
- Conducted sharing sessions, teaching other members how to draw with ink
- Facilitated activities held by the interest group, such as visits to museums