# Jiachao Lin

Mobile: +65 96718336 | Email: <u>lin\_jiachao@u.nus.edu</u> Skype ID: <u>lin\_jiachao@hotmail.com</u> GitHub: <u>https://github.com/lincredibleJC</u> | Online Resume: <u>https://lincrediblejc.github.io/</u>

### **Personal Statement**

#### **About me**

I am a Year 3 Computer Engineering student in NUS with a strong interest in software engineering, innovation and design. With my hardware and software development skills, I hope to improve lives by designing and building innovative solutions that people use and love. To hone my skills, I have attended hackathons, entrepreneurship events as well as seeking work experience in Singapore's software industry. One of the memorable experiences I had was Orbital Programme 2017, a self-driven summer programme to build something useful. My team built an NUS based navigation app to help its users save time and energy by finding the shortest, easiest and most sheltered walking routes in NUS. Through the experience of user research and app building, I have learnt to understand the user's pain points and design a solution that addresses and solves those problems.

#### **How I can contribute**

I am an avid learner, builder and tinkerer. Over the last school vacation, I automated the curtains in my room as a personal project to solve a problem I was facing. With little experience in programming and hardware prototyping then, I had to self-learn new technologies to make it work. Still, I managed to learn the skills I needed and was able to build a working prototype of the automated curtain system within a month. Besides the knowledge that I already possess, I am willing and able to quickly pick up new skills when they are required. Here is a video I made to document the system I built: <a href="https://www.youtube.com/watch?v=WeaW7we3Nd4">https://www.youtube.com/watch?v=WeaW7we3Nd4</a>

Also, I possess experience working in the software industry in Singapore. During my recent internship at GovTech Singapore, I was immersed in the culture of Agile and DevOps. For three months, I had the privilege of experiencing and learning from industry professionals about the entire software development cycle. From gathering user requirements, the shipping of a product release, to the understanding of the business model and practices that keep the project afloat even before the project achieves widespread adoption.

#### Why me

I am a strong team player and possess strong communication skills that help me work effectively and build good relationships. During my internship at GovTech, my project required knowledge from multiple areas of specialisation. By consulting the right specialists, regular communication and updates with co-workers, I was able to overcome the challenges faced at work with ease and maintain good relationships. With these qualities, I believe that I will be able to fit in well, contribute effectively and be an asset to your organisation.

## **Education**

#### **National University of Singapore, Singapore**

Aug 2016 - Present

- Bachelor of Engineering (Honours) in Computer Engineering
- Cumulative Average Point: 3.94 / 5.00
- Expected date of graduation: July 2020

#### Pioneer Junior College, Singapore

Jan 2012 - Dec 2013

• Singapore - Cambridge General Certificate of Education Advanced Level

# **Work and Internship Experiences**

## **GovTech Singapore, Agile Quality Engineer Intern**

May 2018 - Aug 2018

- Worked with a team of 4 engineers to develop a tool to automate functional testing of web and mobile applications for use in Singapore Government's websites and applications
- Used agile software development practices in the development of the HATS Continuous Integration tool e.g. sprint planning, daily stand-ups, retrospectives, pair programming
- Wrote Bash and Ansible Playbook scripts to fully automate the setup of the CentOS virtual environment required to run the functional testing tool
- Project repository: https://github.com/angelialau/hats-centos
- Developed a web server using Java EE and Apache Tomcat to enable users to automate functional testing of their applications and websites on mobile device farms
- Project repository: <a href="https://github.com/angelialau/HATS-API-LOCAL">https://github.com/angelialau/HATS-API-LOCAL</a>

#### **NUS Computing Skylab, Software Engineer**

Mar 2018 – Aug 2018

- Maintenance of Skylab, the official module portal for School of Computing's Orbital Programme in Ruby on Rails
- Regularly updated Ruby Gems in the project build to keep up with security exploits
- Implemented the tracking of the submission status of students using the portal and toggle the registration feature.
- Web Page: <a href="http://nusskylab-dev.comp.nus.edu.sg/">http://nusskylab-dev.comp.nus.edu.sg/</a>

#### 42<sup>nd</sup> Singapore Armoured Regiment, AFV Commander

Jul 2014 - Dec 2015

- Maintained multiple vehicles in battle-ready condition for the company
- Led a crew of 11 men through 2 rotations of military exercises.

## **Achievements and Extracurricular Activities**

#### **National University of Singapore Choir**

Aug 2017 - Present

- Current IT manager for the National University of Singapore Choir
- Gathered business requirements, designed and built the website to publicise and advertise the choir, its events and activities and to facilitate bookings for events

- Website: <a href="https://www.thenuschoir.org/">https://www.thenuschoir.org/</a>
- Co-designed the artwork for the Annual Varsity Voices Concert event booklet in 2018
- Competed in the Llangollen International Musical Eisteddfod and awarded the prestigious Choir of the World Pavarotti Trophy

#### **ECE Undergraduate Student Council**

Aug 2017 - Present

- Current Deputy Cohort representative for JC Computer Engineering Students that matriculated in the Academic Year 16/17.
- Served as a channel of communication between the cohort of 176 Computer engineering students and ECE faculty/staff
- Planned and executed 3 parties and department events for the cohort of ECE students
- Assisted the Cohort Representative in administrative tasks

#### CS2103 Software Engineering: Cher Book, Team Lead

Aug 2017 - Nov 2017

- Lead a team of 3 other software engineering students in designing and developing Cher Book, a Java application to help teachers analyse and monitor students' progress, contact information and keep track of consultations and appointments.
- Wrote maintainable and extensible code, unit and system tests in Junit, increasing the code coverage from 91% to 93%
- Reviewed and integrated new code into the medium size codebase (15k lines of code)
- Served as the git tool expert in the team
- Project Portfolio: https://cs2103aug2017-t16-b2.github.io/main/team/JiaChao.html

#### **Start-up Weekend Singapore Mega 2017**

Sep 2017 - Sep 2017

- Led a team of 7 participants in transforming an idea into a start-up within 54 hours
- Developed a location-based app location prototype for users with similar interest to hang out, with venue optimization as our core business model

#### Independent Software Project: NUShortcuts, Fullstack Developer

May 2017 - Aug 2017

- Designed and built an NUS based navigation web application using MeteorJS
- Successfully applied content taught in relevant data structures and algorithms modules
- Conducted system and acceptance testing for the web application
- Web Page: http://nushortcuts.herokuapp.com/

# **Skills and Proficiencies**

Programming  Web technologies	C Java JavaScript Ruby  Java EE JavaFX NodeJS MeteorJS Ruby on Rails	Intermediate Proficient Intermediate Intermediate Proficient Intermediate Intermediate Intermediate Intermediate Intermediate
	HTML	Proficient
	CSS	Proficient
Server side	Apache Tomcat	Proficient
Databases	PostgreSQL	Intermediate
Integrated Development	IntelliJ	Proficient
Environment	Eclipse	Intermediate
	NetBeans	Proficient
	RubyMine	Proficient
Version Control Tools	Git	Proficient
Hardware related	Arduino prototyping	Proficient
	Raspberry Pi prototyping	Proficient
	Circuit Design	Basic
	HDL (Verilog)	Basic
	ARM Assembly	Basic
Operating Systems	Windows XP, 7, 10	Proficient
. 5 /	MacOS	Proficient
	Ubuntu / CentOS	Intermediate
Non-technical skills	Agile Software Development	Proficient
	Design Thinking Methodology	Proficient
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