

# Yuan Bo Chen

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## EDUCATION

### NATIONAL UNIVERSITY OF SINGAPORE

BComp in Computer Science  
University Scholars Programme

Expected May 2022

Cum. GPA: 4.5 / 5.0

Major GPA: 4.625 / 5.0

### RAFFLES INSTITUTION

Singapore-Cambridge GCE A Levels

Grad. Dec 2015

National Inter-School Judo Champion

### GENERAL ASSEMBLY DATA SCIENCE COURSE

Grad. Oct 2017

Gained skills in Machine Learning Algorithms, Data Modeling, Pandas, Scikit-learn, Seaborn, XGBoost, ImbalancedLearn.

## LINKS

Github://yuchen97

LinkedIn://yuan-bo

## COURSEWORK

Programming Methodology I & II  
Data Structures & Algorithms  
Computer Organisation  
Computer Networks  
Software Engineering  
Probability

## SKILLS

### PROGRAMMING

Languages:

Java • JavaScript • C++ • Python • Assembly • C • HTML • CSS • Markdown

Tools & Frameworks:

SDL2 • Emscripten • Rails • React • Jekyll • Reveal-md

## PROJECTS

### ORBIBOY 🎮

May 2019 - Aug 2019 | NUS Orbital 2019

- Built a functional **GameBoy Emulator** that runs on all modern web browsers.
- Emulator is written completely in **C++**, using **SDL2** for graphics rendering, and then compiled into **WebAssembly** via **Emscripten** to be used together alongside **JavaScript APIs** on the webapp.

### GROUPEKETCH 🎮

Jan 2019 | Hack&Roll 2019

- Android multiplayer drawing game developed using **Processing**, an open-source Java library designed for the visual arts community.
- Game that tests players' communication and memory skills
- Made in 24 hours during Hack&Roll 2019 hackathon.

### SUMOBOT

Sep 2018 | National University of Singapore

- Designed and built an autonomous robot with Lego Mindstorms EV3 that pushes other robots out of a preset arena.
- Took part in a contest and achieved **top 8 out of 40** other participating teams.

### SELF-DRIVING TOY CAR

Feb 2018 - Present

- Currently working on making a toy car drive by itself through machine learning.
- Set up infrastructure from scratch, consisting of a **Raspberry Pi**, a breadboard circuit for engine control, an ultrasonic sensor and a camera.
- Bot utilizes a **UDP server** for signal communication.

### VOUCHER PURCHASE PREDICTION 🎮

Oct 2017 | General Assembly, Singapore

- Predicting voucher purchases from online reservations made through a online restaurant reservation service.
- Cleaned and parsed raw data for data analysis.
- Used **logistic regression** and **XGBoost** models for prediction.

## EXPERIENCE

### TEACHING ASSISTANT 🎮 FOR PROGRAMMING METHODOLOGY I

Aug 2019 - Nov 2019 | National University of Singapore

- Teaching assistant for **CS1101S**, a introductory programming course that is based on **SICP**.
- Conducted **weekly tutorial sessions** that teach students in computational thinking and programming as an undergraduate computer science major.
- Prepared weekly lesson materials and additional practice questions focusing on fundamental concepts such as **abstraction**, **recursion** and **order of growth**.

### NATIONAL CADET CORPS | TRAINING COORDINATION OFFICER

Dec 2016 - Nov 2017 | Singapore Armed Forces

- In charge of planning, overseeing, and organizing military-related activities for Secondary, JC, Poly, ITE students, Teachers, and students with special needs.
- Activities include adventure camps, drill camps, leadership training courses, live firing exercises, jungle navigation, and urban operations exposure training.