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FDUCATION

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://ybchen97 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:

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

PROJECTS

INSURELYTICS %

Aug 2019 - Nov 2019

- Built a cross-platform compatible desktop client management app for insurance agents in **Java**.
- Supports statistical analysis of insurance sales, undo/redo functions and autocompletion of user input.
- User experience geared towards typing with CLI-based command inputs.

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 grahics rendering, and then compiled into WebAssembly via Emscripten to be used together alongside JavaScript APIs on the webapp.

GROUPSKETCH %

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 sratch, 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**.