

#### **EXPERIENCE**

#### NodeFlair — Freelance ReactJS Engineer

AUGUST 2018 - SEPTEMBER 2018

React on Rails Postgres

Delivered mobile-first experience for talent hiring application. Features including invitation, offer and messaging interactions using ReactJS / React on Rails. Published presentational chat components publicly via npm at @hliejun/react-chat.

# **UrbanZoom** — Freelance Google Assistant Developer

JUNE 2018 - JULY 2018

NodeJS Firebase

Dialogflow

TwiML

Created property valuation Google Assistant application using Dialogflow, Actions on Google and extended agent to call service using Twilio Programmable Voice. Wrote call endpoint webhooks using NodeJS, Express on Google AppEngine.

# **ShopBack** — Software Engineer Intern

DECEMBER 2016 - MAY 2017

ReactJS

Laravel

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Built key user and cashback management features on ShopBack's CMS using ReactJS and Laravel PHP, participated in consumer site UI/UX marathon, delivered production fixes and maintenance. Guarded pantry as Chief Welfare Officer.

# **Defence Science Organisation** — Research Intern

MAY 2015 - JULY 2015

OpenCV

OpenMP

Intel IPP

Researched and implemented object-tracking solutions for normalised video feeds using OpenCV in C. Optimised performance using Intel IPP and OpenMP.

#### CONTACTS

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in linkedin.com/in/hliejun

#### **LANGUAGES**



#### CERTIFICATIONS

#### Certified Ethical Hacker

EC Council CEH certification for year 2016/17. Funded by IDA ELITe programme.

#### **AWARDS**

#### ShopBack

#### Star Awards (Ownership)

Awarded for taking ownership of assigned projects and exuding passion during internship.

#### **NUS School of Computing** 9th SoC Term Project (2nd Place)

Bubble Chat was awarded as the second most popular project in the CS3216 module.

#### NUS School of Computing CP3108 Orbital Module (Gemini)

Awarded for completing an independent Android application that tracks and reminds friends of debts in Year 1.

#### Enhanced Learning in IT (ELITe)

Awarded for being chosen as a IT student nominee from college as part of IDA's talent development programme.

#### **EDUCATION**

# National University of Singapore — Computer Science

AUGUST 2014 - AUGUST 2018

Bachelor of Computing with Honours (Merit), Computer Science Major, Interactive Media Development Minor. Completed accelerated modules CS1101S and CS2020 and Software Engineering cores CS3216 and CS3217.

# **Hwa Chong Institution** — Integrated Programme

JANUARY 2006 - NOVEMBER 2011

H2 Physics (A), H2 Computing (A), H2 Math (A), H2 Economics (C), H1 Project Work (A), H1 General Paper (C). Engaged in co-curricular activities such as English Drama (high school) and Chinese Society (college).

#### **DEVELOPER PROJECTS**

#### **Portfolio**

2018 - Personal / 2 WEEKS

NuxtJS

VueJS

AMPHTML

Lightweight personal portfolio and Nuxt + AMP experiment.

# **React Chat**

2018 - Personal / 2 WEEKS

ReactJS

Travis

Storybook

Rollup

Extensible ReactJS chat components written as NPM library.

#### **LittleLives Face Check-In**

2018 - NUS CS3217 / 5 WEEKS

Vision

Azure Face

Pre-school attendance-taking iOS application made for LittleLives. Leverages on Azure Face and iOS Vision for face detection / recognition. Built with VIPER design pattern.

#### Singapore Armed Forces Chief Transport Officer Coin

Awarded for professionalism as deputy manpower officer in the battalion.

#### Singapore Armed Forces Sword of Merit

Awarded for top 10% performance among cohort of commissioned officers in the 89/12 Officer Cadet Course.

#### Hwa Chong Institution Resilience Award (自强不息)

Awarded for aptitude and resilience as a student leader in high school.

#### COMMUNITY

#### NUS Annual Giving 2018 Class Champion

Fundraised for financially challenged NUS students.

#### NUS Rag and Flag Ragger, Beneficiary Engagement

Participated in preparation and execution of fundraising performances, flag days and engaged students under MINDS at Fernsvale Gardens School.

#### Hwa Chong Institution Service Learning Project 3

Tutored disadvantaged students at Chen Su Lan Methodist Children's Home.

#### Hwa Chong Institution Service Learning Project 2

Tutored needy students Chinese at Xishan Student Care Center.

#### Hwa Chong Institution Service Learning Project 1

Tutored students with dysfunctional families English, Math and Science at Ahmad Ibrahim Primary School and organised the project as project leader.

#### **PokéMania**

2018 - NUS CS3217 / 3 WEEKS

UIKit

Cocoa Pods

Pokémon-themed Bubble Blast game that involves writing a simple Physics engine and game engine library. Written from scratch with only access to UIKit and Foundation and built with MVC design pattern.

#### **Card Scanner**

2016 - Personal / 3 WEEKS

Apache POI

JavaFX

.smartcardio

Matriculation card scanning application to facilitate efficient attendance taking, verification and logging to XLS spreadsheet.

#### **Bubble Chat**

2016 - NUS CS3216 / 4 WEEKS

React Native

Socket.io

Express

Topic-threaded mobile chat application that resembles topical online chat rooms and forums, but using a real-time mobile chat event-based environment

# Weight

2016 - NUS NM3216 / 3 WEEKS

Unity

Infinite run game that pits the player against a gravity-field stage while maintaining weight of the character.

#### **TodoList**

2016 - NUS CS2103T / 6 WEEKS

JavaFX

Natty

JUnit

To-do list application with focus on keyboard interactions and minimal mouse interactions. Commands are triggered through parsing natural language text inputs. Built with MVC design pattern.

#### **LEADERSHIP**

#### NUS School of Computing Class Ambassador (2018)

Appointed to build class connections and engage alumni and class members in events, reunions and gatherings.

#### NUS Students' Computing Club RAG Creative Director (2017)

Led creative directions for stage interactions and designs, story flow and scene transitions in the annual Receive and Give performance.

#### NUS Students' Computing Club Deputy Welfare Director (2016)

Organised student welfare programmes such as welfare pack distributions, Halloween celebrations, SoC SuperStar singing competition, Welfare Night for student engagement and wellness.

# Singapore Armed Forces Deputy Manpower Officer (2013)

Managed financial assistance cases, disciplinary charges, facilitated court martials, detention and prison visits, conducted battalion unit induction programs, administered unit level interviews and postings recommendations.

#### English Drama Club (High School) Vice-Chairman (2009)

Managed training sessions, morale and and discipline of club members, conducted new drama training initiatives and facilitated communications between staff, trainers and students.

#### **CREATIVE PROJECTS**

# **Interactive Story: Missing Children of Ann Siang Hill**

2018 - NUS NM3222 / 1 WEEK

Bitsy

Explorative pixel-art story on discoverability and replay, implemented and designed with Bitsy.

# **Interactive Story: The Patrol**

2018 - NUS NM3222 / 1 WEEK

HypeDyn

Text-based interactive story focused on emotion and dialogue.

# **Interactive Stories: Air Crash Investigation**

2018 - NUS NM3222 / 1 WEEK

HvpeDvn

Text-based interactive story focused on choice and replay.

# **UI Design: Food Logging**

2017 - NUS CS4249 / 3 WEEKS

Marvel

Mobile food logging interface mockup and prototyping with careful study of design principles and rules such as Fitt's Law and Hick's Law in Keystroke-Level Model (KLM) Goals, Operators, Methods, and Selection (GOMS).

#### **RESEARCH PROJECTS**

# Satisfiability: SAT Solver

2018 - NUS CS4244 / 5 WEEKS

DPLL CDCL

Implementing and comparing various satisfiability solving techniques and heuristics, modelling and applying it for the Einstein's Puzzle.