

# Rainie Liu

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## CAREER OBJECTIVE

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A dedicated graduate from the University of Technology Sydney with a Master's degree in Software Engineering.

Seeking a **junior software developer role** that would utilize my coding skills to help solve real-world challenges and provide supports for great software systems.

## TECHNICAL SKILLS

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Languages	C#, Javascript, SQL, HTML, CSS
Frameworks	Angular, ReactJS
Knowledge	.NET architecture, CLR, CIL, .Net Framework
Skills	Git, Windows CMD, JSON, XML

## EXPERIENCES

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### Personal Website (Web)

Sep 2020

This is my website written by **React, CSS**. It is totally **responsive** and deployed by **Netlify**. It aims to present an introduction of myself, with a function to see or download my CV, and projects I have done before. I will continually develop this website by adding more animations to the frontend and add a discussion board connected to the backend and database.

- **Responsive Navigation bar** with changing logo and navigation bar
- **Responsive Header** component with a GIF playing as the background and **download CV function**
- **Responsive AboutMe** component with Github and LinkedIn logo(links)
- **Footer** component
- **More functions are developing in the process**

URL: <https://www.rainie.cf/>

Github: [https://github.com/YuhuiRainie/personal\\_website](https://github.com/YuhuiRainie/personal_website)

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### Online social community (Web)

Aug 2019 - Nov 2019

This website aims to be **like Reddit**, using pictures to share and comment. A **MEAN** stack website using **MVC/MVP** design principles. This project used **AngularJS (Component-based Architecture)** as a frontend and **Express** as the server; and **NodeJs (non-blocking driven)** as a backend. This project also used **Bootstrap** to improve the presentation layer and **MongoDB (NoSQL)** database.

- **JSON web token** ensure **user authorization**
- **Display posts function (retrieve first ten posts** from MongoDB and **generate card components** to display on the main page)

- **Edit** (retrieve database with the corresponding post and substitute the old post by a new one) and **Delete** functions
- Enabled **Like** function to allow users to **give a thumbs up**; **count the number of likes** and list people who have liked a post
- **Sort** function which allows users to sort posts by newest or posts with the most likes
- **Pagination**
- Website frontend design
- Measured progress with **Trello**
- Write and Test **APIs by Postman**

**Github:** <https://github.com/YuhuiRainie/AIP-ass3>

Achievements: **Distinction**

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### Car Renting website (Web)

May 2019 – June 2019

Built on a **LAMP** stack. Using **Bootstrap** to make the presentation layer based on **HTML** and **CSS**. Using **Apache** as the server; **PHP** and **JavaScript** as the programming language; **XML** document as the data source.

- The **UI design**
- **Designed the functions for the whole website**
- **Fetch data** from the **XML** file and interpret into car pictures and information
- **Main page: automatically generate** the corresponding number of containers to present car pictures
- **Cart page:** passing data to this page with specific car information and renting days
- **Checkout page** with the total price and automatically generated email

**URL:** [http://www-student.it.uts.edu.au/~yuhliu/ass2/Hertz-UTS/assignment%202/car\\_main\\_page.html?](http://www-student.it.uts.edu.au/~yuhliu/ass2/Hertz-UTS/assignment%202/car_main_page.html?)

**Github:** <https://github.com/YuhuiRainie/Hertz-UTS>

Achievements: **High Distinction**

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### Scientific calculator (C#)

Aug 2018- Sep 2018

This is an equation solver and will be run from the command line and will only work with integer numbers, multiple variable (X) and the following arithmetic operators: + - \* /.

Responsibilities:

- Basic functions of calculation
- **Transform equator** into standard mode, including negative numbers at beginning of the equator and solving blank space between symbols and numbers.
- Resolving **multiple concurrent operators**.
- Linear equations with **multiple X variables**
- **Error handling** and **invalid input errors**, including out of Integer Range errors and division by Zero errors.
- Functional separation for files

**Github:**

[https://github.com/YuhuiRainie/Linear\\_equator\\_scientific\\_calculator](https://github.com/YuhuiRainie/Linear_equator_scientific_calculator)

Achievements: **Distinction**

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## RichText editor (Windows Forms C#)

Oct 2018- Nov 2018

This is a prototype of a text editor with an additional user management function. It is a windows application that will allow new users to be added, existing users to login, and to create/save/edit text documents. The text documents can be either viewed or modified/created based on the user type.

Responsibilities:

- **Design GUI** and **communications between window Forms**
- **Register function:** writing new users to the user database
- **Login: reading and verifying** user information with the user database
- Text editor function with **Font** and **Size**
- **Open, New** and **Save** file function
- **Cut, Copy** and **Paste** function

Achievements:

- Get **High Distinction** for this project

Github:

[https://github.com/YuhuiRainie/Desktop\\_rich\\_editor](https://github.com/YuhuiRainie/Desktop_rich_editor)

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## Travel agent database (SQL)

Aug 2018 - Nov 2018

A relational database developed using SQL for a Travel Agent website.

- **Designed** the tables and relationship between the tables
- Draw **ERD** for the database
- Designed the **primary key**, **foreign key** and **self-referenced table**
- **Built the table using by SQL**
- **Linux** operating system

Github: <https://github.com/YuhuiRainie/travel-agent-database>

Achievements: **Distinction**

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## BubblePop Game (iOS app)

April 2019 - May 2019

In this game, a number of bubbles are randomly displayed on the screen. A player can pop a bubble by touching a bubble, and every time they pop a bubble they earn points based on the game's rules. This app uses iOS native language **Swift** and **UIKit** to develop the presentation layer.

- **MVC** design mode: separating objects, presentation view and function controller
- **Login page** to enter name
- **Settings page** to set up the maximum number of bubbles and time
- **Game page** with a **timer** and **real-time updated score** plus randomly generated bubbles
- **Highest score** with the top 3 highest score history using **ScrollView** and **TableViewController**

- **Control the appearance** of the different colour bubbles
- **Logic to avoid bubbles overlapping** and landing in the corners
- **Compatibility tests** in different iOS devices and system versions of Xcode

**Github:** [https://github.com/YuhuiRainie/BubblePop\\_Game](https://github.com/YuhuiRainie/BubblePop_Game)

Achievements: **Distinction**

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### Share my Car (iOS app)

**May 2019 - June 2019**

It is an app provide sharing personal car service at a low cost. It is like the Car Next Door app. It is developed by **Swift**; used **Alamofire** to achieve network; used **AirTable** to store raw date; used **SwiftJson** to interpret these data; It is strictly followed **MVC** as the programming principle. Models, view and controller are in separated folders.

- **UI design** by **Drawio**
- **Building models:** car, location and user objects
- **Search page** (view and controller) showing the result of any matched car in the database, automatically generating rows and sections in **TableViewController**
- **Car Detail page** (view and controller) with a map implemented by **MapKit**, fetched data of the car's pictures complemented by **HorizontalScroll** and the car details
- **Fetch data** from Airtable and **translate date** into pictures and location of the car
- **Compatibility test** in different iOS phone and system versions in Xcode

**Github:** <https://github.com/YuhuiRainie/uts-ios-2019-project3-130>

Achievements: **High Distinction**

## EDUCATION

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University Of Technology, Sydney

**Master Of Engineering (Extension)**

**Mar 2018 – Dec 2019**

- Major in Software system engineering
- **Distinction** average

Tianjin University Of Technology And Education, Tianjin City, China

**Bachelor Of Engineering**

**Sep 2010 – June 2015**

- Major in computer science and Technology

**Certificate**

- **ASP.net System of CITT**( national Occupational Qualification Level 3)

**May 2013**

## CORE SKILLS

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- A good **communicator** who is able to explain complex technical concepts, both verbally and in writing, to technical and non-technical audiences.
- Strong **problem-solving** and analytical skills.
- **Self-motivated** and a quick learner.

- Ability to anticipate problems and develop **effective solutions**.
- **Resilient** and able to work to tight timescales

## LANGUAGE

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English: **PTE Academic: 85/90**

Chinese

## REFEREES

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Available upon request.