Proposal for “Go where GaiGai” web application

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Submitted to—
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Contents

Executive Summary

Due to a heavy work culture in Singapore, we find that many adults and students alike find it very difficult to plan meet-ups with friends and family. Especially in the recent Covid 19 pandemic, the dining and entertainment landscape in Singapore has changed drastically. Hence, we often have trouble knowing where to go to enjoy a night out with friends and family to socialize and relax our minds. In this project we seek to develop an application which will assist users with these difficulties.

Currently, there are many applications which search for food and entertainment locations near the user, as well as websites which help users plan travel itineraries. However, we are trying to create an application that searches for similar destinations and allows users to add these locations into a planner for future use or to share with others. The searches performed by this application will be dynamic and dependent on user preferences.

This project will utilize data pulled from Yelp's public database via python on Jupyter Notebook, and its front-end will be developed with Node.js and react on Visual Studio Code. As such, a team of developers and QA engineers with relevant skills and experience have been selected to work on this project. A team wiki and Github repository will also be set up to store code and written documents.

Statement of Problem

Planning one-day outings or a night out with friends and family is difficult. Especially when all parties are busy with work and school, or as tourists abroad without a fully planned itinerary. There exists a huge industry of mobile food and dining apps that help users search for good food near them, as well as websites that offer fully customizable day by day travel itinerary when traveling. A quick look at the first category of apps such as Yelp show that they can display food locations in the user's vicinity on a map based on the user's search result. In the second category, itinerary planning websites such as Wanderlog allow users to plan holidays by searching for food, leisure and entertainment destinations. These itinerary websites focus on booking flights, hotels, and even rental vehicles based on their budget. They however suffer from inaccessibility, often requiring numerous clicks and user input to be able to function properly.

As such, creating a simple plan to travel both domestically and abroad without knowing where to go is often done by searching for recommendations on search engines such as Google. Relevant search terms when using search engines include "good food near me", "nearby gardens" and "halal food".

Objectives

This document proposes a website which integrates the ease of access of mobile food/dining apps and searching capability of trip planning websites. The website seeks to allow users to experience quick and straightforward trip planning to food and leisure destinations by achieving the following objectives:

(1) Website will use data extracted from Yelp

The website will be using data extracted from Yelp's database, via Yelp Dataset API. The database contains the information of food, leisure and entertainment locations derived from user reviews on Yelp. The website will be using this dataset to plot locations on the map, as well as displaying information regarding said locations.

(2) Allow users to input location via map or by search result

After opening the website, the user will be presented with a map. The user will be prompted to input a location by clicking on the map or by typing in the search bar, from which the website will use as a basis to initiate a search

(3) Website will search for location(s) based on user preferences

The website algorithm will search for five locations based on whether the user inputs a certain location of interest, or if the user enters a category of destinations such as bars, gardens or dining. The algorithm will search for these locations within a specified range of distance.

(4) Website will display name, location and review ratings of search result(s) on a map

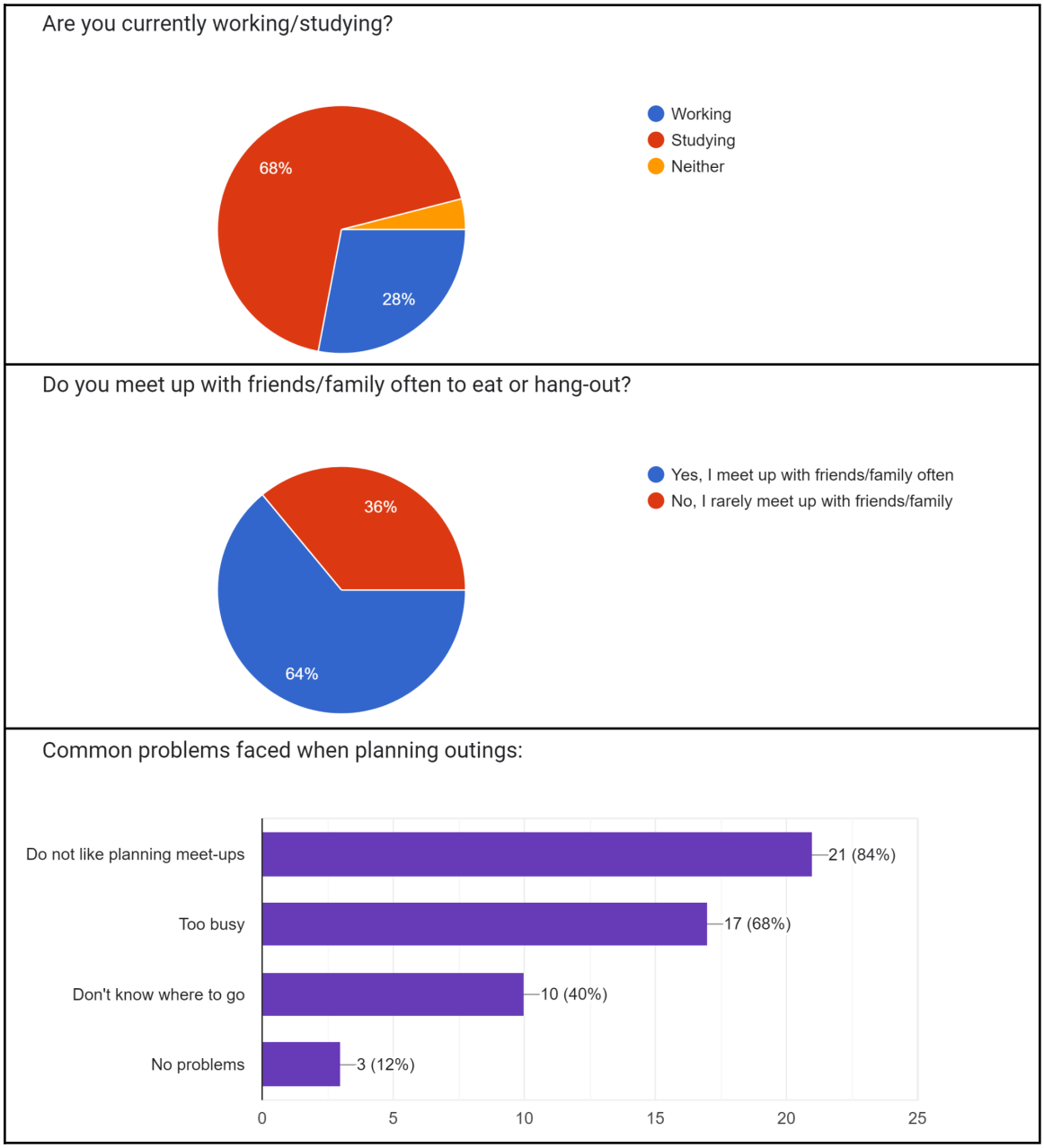
Upon completion of the search as explained in the above paragraph, the website will display the locations of the search result(s) on a map as map pins. Should the user click on the map pins, basic information about each location will be displayed, such as name, address and user review count and ratings for each location.

Technical Approach

To meet the objectives, our team will create an algorithm which will be able to perform the primary function of this project, which is to perform a search and suggestion of dining and leisure experiences. Considering what features are required of the software in order to meet said objectives, this project will be deployed on a website. By doing so, it will be easier for potential users to use our software thus increasing user engagement and ease of access. The following sections below will further explain the needs of customers, technologies we will be employing in this project and system architecture of our design.

Customer Needs

Within the team, each member has shared different pain points when planning an outing with friends and/or family. A Google form survey is then created and conducted with other NTU students and relatives to validate the existence of pain points and detect any other customer needs. The results of the survey are as follows:



From the above results, we can see that many of the surveyees meet up with friends and family despite being busy with work or school. However, most do not like planning meet-ups because they find it too troublesome to plan when they are busy, or have difficulties deciding where to go when made to plan such meet-ups.

Target Specifications

The technology needed to build “Go where GaiGai” web application should be to run on both smartphone devices as well as traditional computers. This will allow quicker accessibility for users to do their planning. It needs to be able to interface with Yelp.com API as well in order to get places of interest data.

The location search bar that user’s will use to input their desired destination should be able to support the following queries:

- User current’s location
- Neighborhood Name
- Address
- Postal Code

This will then allow some location flexibility for users when they are doing their plannings. The search results will display the top five best places of its category, based on its rating number followed by the number of reviews. Five is used in this case to prevent users from being overwhelmed with various choices. The results’ locations will be within a five kilometer range around the location the user has input into the search bar.

The web application needs to be accessible to users quickly to allow them to plan on the go, therefore users do not require any form of logins. Furthermore, the plan made by users needs to be able to export into a txt format, allowing users to share their plans with their peers. The web application’s planner needs to be able to import the same txt file so that users can edit their existing plans.

Technology Consideration

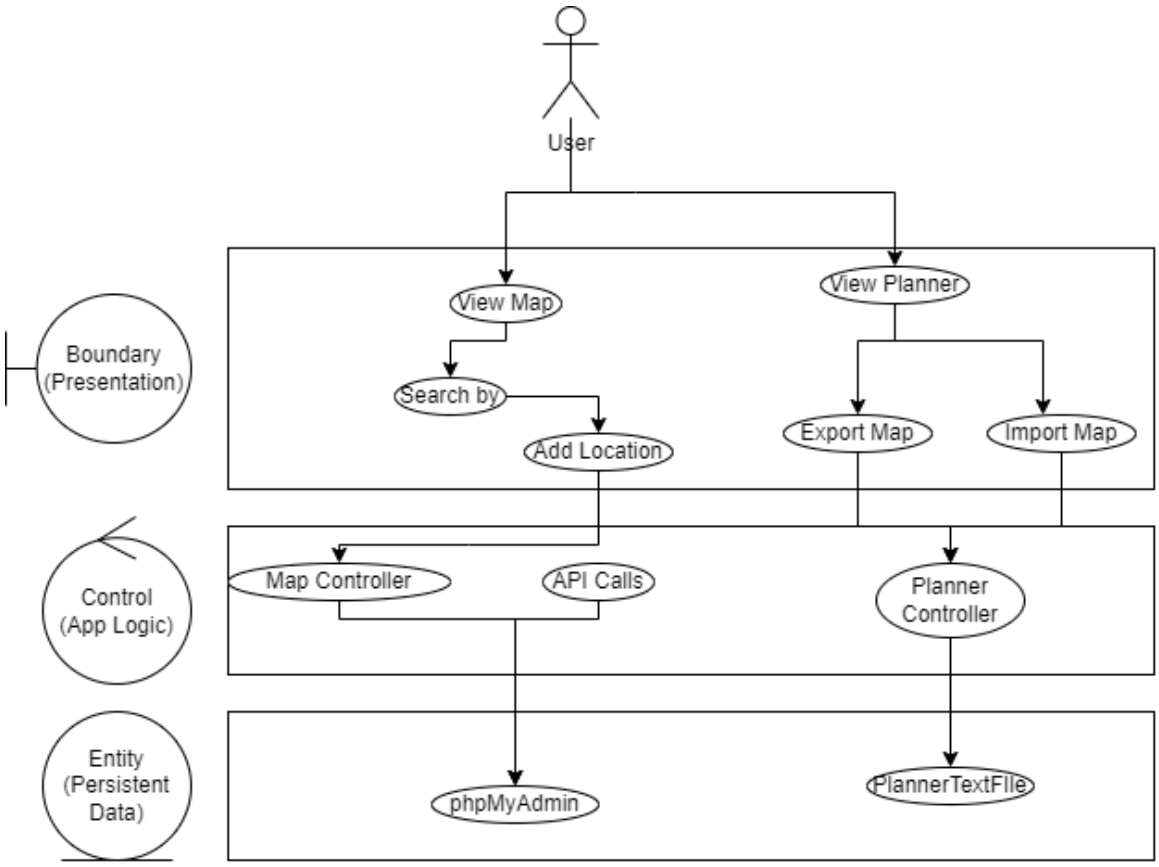
Tool/Platform	Description
NodeJS	Node.js is an open-source, cross-platform, back-end JavaScript runtime environment that runs on a JavaScript Engine and executes JavaScript code outside a web browser. NodeJS will be used as the back-end to host React and other JavaScript dependencies.
React	React is an open-source front-end JavaScript library for building user interfaces based on UI components. It is maintained by Meta and a community of individual developers and companies. React will be used to create the front-end of the entire web application.
Python	A high level and general-purpose programming language that is easy to read and provides a wide range of libraries.

	Python will be used to pre-process Yelp's data for it to be used in the web application.

System Architecture/Platform

Tool/Platform	Description
Git	Distributed Version Control System(VCS). Used to track changes in any set of files, usually used for coordinating work among programmers collaboratively developing source code during software development.
GitHub	Internet hosting service for software development and version control using Git. It provides the distributed version control of Git plus access control, bug tracking, software feature requests, task management, continuous integration, and wikis for every project.
npm	npm is a JavaScript package manager that allows the team to download and manage JavaScript dependencies from online repositories.
Diagrams.net	Cross-platform graph drawing software developed in HTML5 and JavaScript. Used to create diagrams such as flowcharts, wireframes, UML diagrams, organizational charts, and network diagrams.
VSCode	Source-code editor made by Microsoft for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git.
phpMyAdmin	phpMyAdmin is a free and open source web based SQL database. It can be run on any server as long as it has a web browser. Having a graphical interface allows us to easily edit components of the database.
Jupyter Notebook	Open source web-based interactive computing platform. This is where we edit our python scripts to fetch and pre-process data

System Architecture Diagram



As there are many different components required for the application, using layered architecture, we are able to separate it into 3 distinct layers: Presentation, which contains the user interface, Business and data access logic, which is responsible for handling user request as well as fetching data from the database, Data layer where the data required for the program is stored at. This provides abstraction between layers which achieved the Single Responsibility Principle.

Project Management

This project will adopt a plan-driven incremental development model. This will allow the team to gain feedback quickly, as new versions are delivered frequently. The scope of the project and initial requirements have been clearly defined. Once the project proposal is approved, a Quality Management Plan and Project Plan will be created before any further development activities start. During the early phases of the implementation stage, a Risk Management Plan will also be produced to allow the team to understand the organization and sponsor's approaches to the risks of this project. A use-case model and initial User Interface (UI) mockup has also been completed. Once the functional and non-functional system requirements have been fully analyzed, and the system architecture is designed, the development team can begin creating a software prototype.

A comprehensive Test Plan will be written by the QA Manager once implementation is completed. The Test Plan will allow the QA Engineer to perform relevant unit, integration and load tests to determine the robustness of the software releases, and allow the development team to respond to any defects before deployment. Black-box testing will be used in this project. From these tests, a Test Coverage Report will be generated. During this same stage, the Change Management Plan and Configuration Management Plane will be produced.

A Release Plan and Software Maintainability Report will be generated after the software completes quality assurance tests, after which the final application can then be deployed.

Below is the Gantt chart for the project. Project tasks have been identified and each given an appropriate start and end date. Completion of the overall project execution, tasks and sub-tasks are also shown in the diagram.

	Task	Start	Due	%
	Complete project execution	22/8	31/10	24%
	Project Planning			44%
1	Define Project Scope	22/8	29/8	100%
2	Produce Project Proposal	22/8	29/8	100%
3	Produce Task Backlog	22/8	29/8	100%
4	Setup Team Wiki	22/8	5/9	100%
5	Produce Quality Management Plan	5/9	12/9	0%
6	Produce Project Plan	19/9	26/9	0%
7	Produce Risk Management Plan	19/9	26/9	0%
8	Produce Configuration Management Plan	3/10	17/10	0%
9	Produce Change Management Plan	3/10	17/10	0%
	Design			50%
10	Produce Use-case model	22/8	29/8	100%
11	Produce Initial UI Mockups	22/8	29/8	100%
12	Design System Architecture	22/8	5/9	0%
13	Complete System Requirement Specifications	5/9	12/9	0%
	Implementation			0%
14	Create Prototype	5/9	3/10	0%
15	Implement Main Page	12/9	17/10	0%
16	Implement Search Algorithm	12/9	17/10	0%
17	Implement Planner	12/9	17/10	0%
	Testing			0%
18	Produce Test Plan	17/10	24/10	0%
19	Unit Test	24/10	31/10	0%
20	Integration Test	24/10	31/10	0%
21	Load Test	24/10	31/10	0%
22	Produce Requirements Test Coverage Report	24/10	31/10	0%
	Deployment			0%
23	Produce Release Plan	3/10	17/10	0%
24	Produce Software Maintainability Report	3/10	17/10	0%
25	Deployment of Application	27/10	31/10	0%

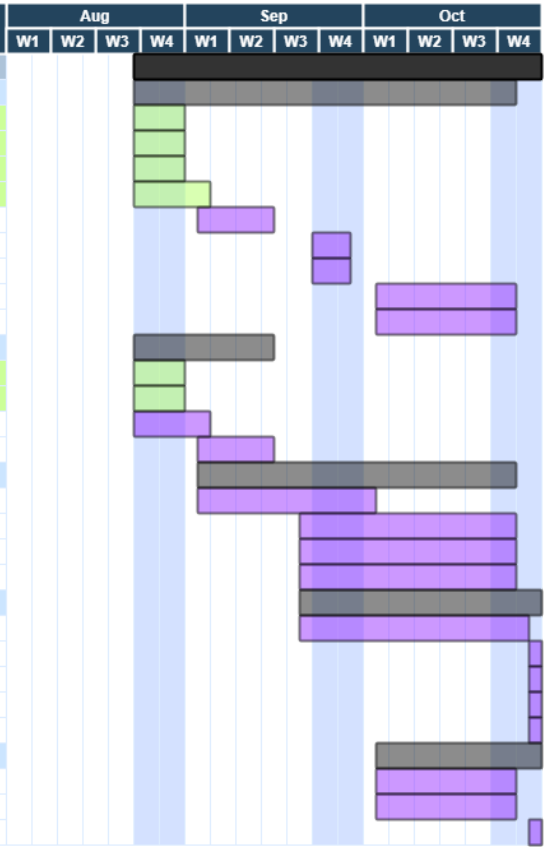


Figure 1: Gantt chart for the project. The purple and green bars indicate the portions of the tasks that are incomplete and completed respectively.

Deliverables

The customer can expect the following deliverables:

1. **Software Requirement Specifications** - Use case model and use case description produced during design phase.
2. **Physical Prototype** - An application prototype will be created in the early implementation phase. It will be a locally hosted website.
3. **Detailed Description of Test Procedures** - Full test plan, test case descriptions and test coverage report will be generated after implementation of the application.
4. **Application Source Code** - Source code will be uploaded unto Github repository.
5. **Application Flowchart and Documentation** - Graphical representations of system architecture and UML class diagrams.
6. **User Instruction Manual** - User-friendly instruction manual will be produced to allow for training of personnel. The instruction manual will describe the functionality of the software and steps to troubleshoot bugs and/or configure system settings.

Budget

The planned budget required for this project is **$91,850.00**. The amount is calculated with the inclusion of a 10% contingency cost for shipping and faults in equipment. The table below presents the full cost breakdown of the project budget.

Table 1: Requested items and funds for initial design.

Item	Supplier	Quantity	Unit Price	Total
Labor Costs				
Project manager	-	1	$30,000.00	**$30,000.00**
Project team members	-	7	$3,000.00	**$21,000.00**
Equipment Costs				
Computers	Lenovo	8	$2,500.00	**$20,000.00**
Printer	Brother	1	$2,000.00	**$2,000.00**
Software and Licencing Costs				
Back-end Services	Google	1	$1,500.00	**$1,500.00**
DataBase	Google	1	$2,000.00	**$2,000.00**
Workspace and Commutation Costs				
Office rental	NTU	1	$6,000.00	**$6,000.00**
Transportation	Taxi	1	$1,000.00	**$1,000.00**
			TOTAL	**$83,500.00**
Contingency Costs				
10% of sum	-	-	-	**$8,350.00**
			TOTAL	**$91,850.00**

Communication and Coordination with Sponsor

Before beginning this project, the Project Manager will meet with the Project Sponsor to ensure that the objectives of both parties align. In this meeting, roles and responsibilities will be established, and required resources will be identified to ensure no administrative, communication or logistical difficulties arise when the project launches. The Github repository will be made known to the Project Sponsor should there be a need to access releases of the software during this project.

The Project Manager will ensure that bi-weekly deliverables are set clearly, and send bi-weekly update reports to the Project Sponsor via email. There will also be meetings between the team and the Project Sponsor every month. All members are to be present during the meetings to ensure that there will be no lapse in expertise. Due to Covid 19, meetings will be expected to be held online on Zoom. Instructions pertaining to this meeting will be sent via email two prior.

The Project Sponsor is expected to acknowledge bi-weekly update reports. Any changes to deliverables or feedback should be relayed to the Project Manager as soon as possible, to ensure no build-up of backlog tasks. Should the Project Sponsor have any inquiries, the Project Manager should be the first point of contact, followed by the Lead Developer.

Team Qualifications

Full resumes of each team member is provided in Appendix A.

1. Eugene Lim Zhi Jie (Project Manager/Release Manager) - Has previous experience on Software Engineering documentation and planning. Able to code with Node.js and React.

2. Yeo Kai Liang Jasper (Lead Developer) - Great communicator, and observant, has experience in full-stack development and SDLC (software development lifecycle).

3. Chang Tze Chuan (Front-end Developer) - Analytical and detail-oriented, has previous front-end technology experience with Node.js, React and its features.

4. Isaac Soh Wei Yang (Back-end Developer) - Well versed in pre-processing and post-processing of raw data as well as management of numerous databases ranging from offline to online.

5. Huang RuiMin (QA Manager) - Have developed mobile applications using Flutter and Android Studio, as well as the backend development of website

6. Yap Wee Kiat (QA Engineer) - Adaptable and with multi-dimensional thinking, able to think from user's perspectives. Skeptical and always go the extra mile to ensure that end–users get the best experience.

Appendix A:
Résumés of Team Members

Eugene LIM Zhi Jie | **Mobile No.: 8683 0294** | **Email: euglzj99@gmail.com**

EDUCATION

Nanyang Technological University, Singapore Aug 2020 – Aug 2022
Bachelor of Engineering (Computer Science)
- Expected Honours

Nanyang Polytechnic, Singapore Apr 2016 – Oct 2018
Diploma in Mechatronics Engineering
- Dean's List for Academic Year 2016/2017/2018
- Diploma with Merit

ACADEMIC PROJECT

Nanyang Polytechnic, Singapore Jul 2018
World Skills Singapore 2018 – Design a MPS to perform industrial tasks.
- Led a team to design a Modular Production System to process industrial workpieces to fit assessed requirements.
- Responsible for programming the Programmable Logic Controller in SFC, enabling the system to perform mechanical and hydraulic movements.
- Presented final product to panel of experts from companies such as Intel, HP, Festo, Panasonic.
- Achieved Bronze Medal for Nanyang Polytechnic.

WORK EXPERIENCE

Ministry of Defence, Singapore June 2022 – July 2022
Project Officer
- Contributed to a proof-of-concept research project, tasked to create a data lake capable of streaming data in real-time and near real-time speeds.
- Proposed and created minIO as a standalone database.
- Implemented Apache Kafka as an event message broker service and Apache Spark as a streaming tool to stream data from a source database into minIO.

Ministry of Defence, Singapore Sep 2019 – Aug 2020
Project Officer, Covid-19 Relief Effort
- Designed a series of checks using excel to draw information from at least 5 data sources to verify eligibility of personnel for conveyance.
- Generated daily conveyance report to various quarantine sites, optimising workflow, and average work hours from 18hr to 10hr.
- Managed urgent conveyance requests in day-to-day planning orders with completion rate of 90% with less than 30min reaction time, compared to previous average of 1.5hr.

CO-CURRICULAR ACTIVITIES

Boys Brigade Jan 2011 – Oct 2015
Admin IC
- Supervised publicity and disseminating information regarding co-curriculum activities, ensuring 90% attendance in outreach programs.
- Managed social media permissions and moderated posts and comments.

SKILLS

Spoken Languages: Proficient in English, Chinese and Malay
Programming Languages: C++, C, Python, Java, React, Shell, Scala, SFC
Software/Technologies: Visual Studio Code, Eclipse, ArcGIS, Kafka, Docker, Apache, minIO, Panasonic FPWIN7, Microsoft Office

HOBBIES & INTERESTS

Volunteer Work (Charities, Outreach Programs), Sports (Cycling, Running)
- Volunteered as outreach member in collaboration with Yishun Town Council, organized game booths and information services to members of public.

YEO KAI LIANG, JASPER

HP : +65 9450 3397
Email : yeok0049@e.ntu.edu.sg / yeojasper@hotmail.com
LinkedIn : https://www.linkedin.com/in/jasper-yeo-587b4710a/

EDUCATION

Nanyang Technology University **Aug 2020 - Jun 2024**
Bachelor of Engineering (Computer Science)

Ngee Ann Polytechnic **Apr 2015 - Mar 2018**
Diploma in Information Technology, Specialised in Cloud Computing
- Director List Award April Semester AY 2016/2017
- Director List Award AY 2015/2016
- CSIT Diploma Scholarship AY 2017/2018
- CSIT Diploma Scholarship AY 2016/2017
- Gold Certificate of Achievement in Co-Curricular Activities

Diploma Plus in Japanese Language

WORK EXPERIENCE

Faber Image Media Pte Ltd, Temporary IT Assistant **Jun 2022 - Aug 2022**
- Mapped out network infrastructure for all 3 studios in the company
- Maintained and troubleshoot IT assets in the company, ensuring patches are up to date and errors being rectified
- Assisted in setting up and execution of live events

CSIT, Data Visualisation Intern **Mar 2017 - Aug 2017**
- Research and explore latest front end web technologies for data visualisation
- Designed and developed data visualization component as part of company's tool for data visualization

CO-CURRICULAR ACTIVITY AND COMMUNITY SERVICE

Ngee Ann Polytechnic Klavierensemble / Piano Club **Apr 2016 – Apr 2017**
Logistic Head
- Coordinated and planned piano concert for beginners
- Teach beginner pianist to play their pieces for concert
- Participated in freshmen orientation camp as group leader

SKILLS

Languages:
- Proficient in: English, Chinese
- Conversant in: Japanese

Technical Skills:
- Programming languages: Visual Basic, Python, Java, C, C#, JavaScript, React JS, PHP, HTML, CSS, Transact-SQL
- Computer Networking
- Frontend Development

Software:
- Microsoft Office
- Microsoft Visio

HOBBIES AND INTERESTS

Piano, Video Games, Gunpla, Foosball

Chang Tze Chuan | Mobile No.: 8332 9024 | Email: tchang006@e.ntu.edu.sg

EDUCATION

Ngee Ann Polytechnic Apr 2015 – May 2018
Diploma in Electronics and Computer Engineering
- Specialization in Network Systems and Security
- Distinction in Engineering Mathematics 3A

Nanyang Technological University, Singapore Aug 2020 – May 2024 (Expected)
Bachelor of Engineering (Computer Science)

ACADEMIC PROJECT

Nanyang Technological University, Singapore Aug 2020 – Present
Coursework
Software Engineering
- Used Node and React.js for group project to create a website for users to use fitness facilities including geolocation to know which ones are the nearest and also provide health tips.

Object Oriented Design & Programming
- Used Java for group project in Visual Studio Code to create a Restaurant Reservation and Point of Sale System (RRPSS).

Final Year Project
- Expected to accomplish in Year 4

INTERNSHIP EXPERIENCE

Data Storage Institute Sep 2017 – Feb 2018
Scientist III / DCT
- Self-taught how to deep dive into text data and obtain more in-depth information and utilize programs like Python and Deepdive.
- Analysed data and linked important information together to help understand data more clearly with meaning.

CO-CURRICULAR ACTIVITIES AND COMMUNITY SERVICE

Greenridge Secondary School Jan 2011 – Nov 2014
National Police Cadet Corps
- Learnt to lead people and know the vast importance of both teamwork and to work independent.
- Performed in events like NPCC Service Day, to do charity such as delivering food to the elderly, also leading juniors to be cadet leaders through various trainings and tests such as drills and training camps.

Greenridge Secondary School Jan 2011 – Nov 2014
Values In Action (Student)
- Coordinated in Community Involvement Programme to help out people in need, by e.g. collected newspapers and delivered donated food
- Learnt to lead and work with other people and to manage different situations and difficulties

Voluntary Work Feb 2012
Food From Our Heart (Student)
- Volunteered to help distribute food to the needy people at their residence, covering many blocks of HDB flats, learning more about how the situation can be improved

CERTIFICATES AND AWARDS

Certificate of Merit Jul 2013
- National Mathematics Competition

Award Dec 2016
- Director's List in April Semester 2016

SKILLS

Languages: Written and Spoken English
Digital Skills: Microsoft Office, Visual Studios 2013, Linux, Java, React, Node, Eagle CAD, Silicon Laboratories IDE (Microcontroller Interfacing using C Programming), Scientific Notebook, DesignSpark Mechanical 2.0, Tina

HOBBIES & INTERESTS

Playing computer games, programming.

Isaac Soh Wei Yang

20 Queen Close | Singapore 140020 | 9768 1793 | byun_l@hotmail.com

Educational

Bachelor of Engineering, Computer Science — Expected Dec 2022
Nanyang Technological University, Singapore
- Expected to specialise in Data Science and Cyber Security

Diploma in Computer Engineering — Apr 2014 to Apr 2017
Singapore Polytechnic, Singapore
- Diploma with Merit

Working Experience

Cyber Security Engineer Intern — Aug 2021 to Dec 2021
Trustwave

- Research on the latest exploits among the different operating systems as well replicating it
- Development of CyberRange
- Assisting in CyberRange activites

Office Worker (Part-Time) — July 2016 to Aug 2016
TransitLink

- Responsible for setting up NFC data on newly created cards

Product Analyst Intern — Sep 2015 to Oct 2015
NCS

- Analysis of Wi-Fi tracking tools
- Analysis of SMART Bins

Data Entry Assistant — Jan 2014 to Feb 2014 & Sep 2014 to Oct 2014
Asia Medic

- Archiving of past patients' medical records into database
- Retrieval of patients' medical records when needed

Bartender & Waiter — Nov 2013 to Jan 2014
Ramen Play, BreadTalk

- Tasked with serving customers
- Tasked with preparing ingredients for the day

Awards & Achievements

- Diploma with Merit – Singapore Polytechnic (2017)
- Singtel Cadet Scholarship (2015 – 2017)
- Director's Honour Roll (2014/2015, 2015/2016, 2016/2017)
- Student council Executive member - Assistant treasurer and secretary (2013 to 2014)
- NYAA Bronze award (2013/2014)
- Certified Lifeguard (Since 2013)

Skills

- Proficient in Java, C++, Python, SQL
- Knowledge in Microsoft Office, Visual Studio, Adobe Photoshop, Server Management (Windows), Android studio
- Languages
    - Fluent in English and Chinese(Simplified)
    - Elementary level in Korean and Japanese

Huang Ruimin | **Mobile No.: 91868413 | Email: huangruimin07@gmail.com**

EDUCATION

Nanyang Technological University, Singapore Aug 2020 – May 2024

- Bachelor of Engineering (Computer Science)

ACADEMIC PROJECT

iNtuition v8.0 Feb 2022

24-hour Hackathon

- Developed an Android application with flutter and Android Studio, assisting caretakers to take care dementia patients
- Provides functions for both caretakers and dementia patients such as location tracking function with a help button, reminder page for patients to take their medications on time

What The Hack Sep 2021

24-hour Hackathon

- Developed a telegram bot informing users about various recycling initiatives rolled out
- Provides user with list of recycling/collection points in vicinity based on current location
- Provides list of Do's and Don'ts when recycling each type of material

WORK EXPERIENCE

TUM Asia June 2022 – Aug 2022

Student Assistant for research project under the LTA-URA Urban Mobility Grand Challenge

- Choosing required traffic data from provided video recordings
- Perform video data trimming and annotation of different locations using Computer Vision Annotation Tool

Atome May 2022 – Jun 2022

Brand Ambassador

- Engaged in conversation with people of various backgrounds to introduce atome
- Enticed customers to download and utilise atome
- Built good relationship with merchants to aid in sales

L'Entrecote The Steak & Fries Bistro Dec 2021 – Jan 2022

Waiter

- Displayed enthusiasm and promoted excellent service to customers
- Conducted the clean ups of tables after customers left to enable speedy turnaround and guest flow

MSIG Feb 2020 – Apr 2020

Administration

- Collected, validated and distributed information to employees

Paul Nov 2017 – Feb 2018

Cashier

- Addresses customers queries on purchases and locate items
- Welcomed customers and helped determine customer's needs

CO-CURRICULAR ACTIVITIES

NTU Recreational Floorball Club Current (Aug 2022 – May 2023)

Publication and Publicity Manager, Event Manager

- Managing Social Media account and creating awareness of events on it, as well as reaching out to halls and student community

- Supervise and plan for upcoming events, taking into consideration of any logistics that are needed

Hall 2 Junior Common Room Committee Aug 2021 – May 2022
Softball Captain
- Strategized every training with fellow co-captains to ensure freshies and seniors both enjoy softball at corresponding skill level
- Build good relationship and liaised with other halls to conduct friendly matches, making sure everyone gets experience in playing matches

Hall 2 Junior Common Room Committee Aug 2021 – May 2022
Block Manager
- Organized block matters and assist hall council in conducting block events such as Block Supper and Halloween
- Presented important information from hall council to block residents as soon as possible

NTU Computer Science and Engineering Club Aug 2021 – May 2022
Corporate Liaison Sub Committee Member
- Facilitated in liaising with over 100 external companies to explore opportunities beneficial to students
- Cooperated with fellow committee members in Exam Welfare Initiative to pack and distribute 800 exam welfare packs to students

Hall 2 Orientation Main Committee Aug 2020 – Aug 2021
Assistant Group Leader – Publications and Publicities
- Designed 2 shirts using Canva with fellow committee members to sell during canvassing
- Arranged the locations and theme for committee photoshoot, and edited 2 videos using Premiere Pro
- Lead 30 freshies during the 3 days zoom orientation, planned games and activities that encourages interaction and bonding

SKILLS

Languages: Proficient in English and Chinese
Digital Skills: Java, C, C++, Python, CVAT, Photoshop, Premiere Pro, HTML

HOBBIES & INTERESTS

Travelling, Reading, Sports (Floorball, Badminton, Frisbee, Volleyball, Basketball, Kayaking), Building Puzzles(Jigsaw puzzles, 3D puzzles)

Yap Wee Kiat | Mobile No.: 9824 3107 | Email: yapw0026@e.ntu.edu.sg

EDUCATION

Nanyang Technological University, Singapore **Aug 2020 – May 2024 (Expected)**

Bachelor of Engineering (Computer Science)

Ngee Ann Polytechnic **Apr 2015 – May 2018**

Diploma in Electronic and Computer Engineering

- Relevant Coursework: Electronic Design Prototyping & Manufacturing, Application Programming, Linux Servers, Cloud Computing & Data Centres.

ACADEMIC PROJECTS

Nanyang Technological University, Singapore **Aug 2020 – Present**

Coursework

Object Oriented Design & Programming - Restaurant Reservation and Point of Sale System (RRPSS)

- Used Java for the group project
- Developed for customer to make reservation at a restaurant
- Added time-out system for restaurant if customer is late for a certain time

Software Engineering group project – Develop an application for user to HDB re-sale value

- Flutter is used for application development
- Geolocation used to track user location

INTERNSHIP EXPERIENCE

Ryobi Kiso(S) Pte. Ltd. **Sep 2017 – Feb 2018**

Assistant Instrumentation Engineer

- Abetted colleagues to do installation of proximity sensor and incremental encoder.
- Examined reading collected from sensors and check for any abnormal readings.
- Identified source of abnormal readings and overhauled problem.

CO-CURRICULAR ACTIVITIES & COMMUNITY SERVICES

Fajar Secondary School **2010 – 2014**

National Police Cadet Corps (NPCC)

- Planned games and activities with school mates.
- Conducted and monitored student's movement while they interact and bond in games and activities.

Animal Concerns Research and Education Society Project **2011**

- Raised fund and cleaned area for animals in need.

Flag Day **2013 & 2014**

- Raised fund for Society for the Physically Disabled and Muhammadiyah Welfare Home

Batam, Indonesia **2011**

- Conducted games and taught children balloon sculpting in a less developed school.

SKILLS

Languages: Proficient in English and Chinese (Written and Spoken)

Digital Skills: C, C#, Python, Linux, Microsoft Office, Java, Flutter

HOBBIES & INTERESTS

Sports (Basketball), Travelling, Gaming, Anime, Chinese Drama