| **FINAL INTERNSHIP REPORT BY STUDENT** |
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| Student Name: Chiu Cheng Wai, Winston  Diploma: Game Development & Technology  Module: Internship Project  Company Name: NTU ARISE | Admin No: 212668S  Period: **4** |
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| **ACKNOWLEDGEMENTS** | | |
| --- | --- | --- |
| 1 | Mr Choo Chia Fong (School Industry Mentor) | Senior Lecturer  School of Design & Media |
| 2 | Mr Thomos Koh (Industry Internship Mentor) | NTU ARISE |
| 3 | Mr Chris BX (Other) | NTU ARISE |
| 4 | Mr Tran Nguyen (Other) | NTU ARISE |

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# ORGANISATION BACKGROUND

## Organisation Information

Name: Aging Research Institute for Society & Education @ NTU (ARISE)

Address: ARISE@NTU, 61 Nanyang Drive,

Academic Building North (ABN), Level 1, #01A-01,

Singapore 637335

Country: Singapore

## Nature of Business

Design, Development and Testing of games for elderly. Data Collection for surveys in senior activity centers. Creation of applications to improve efficiency of work done.

## Platform and Technology

Platform

* Windows
* Apple IOS
* Android

Hardware

* Desktop environment
  + Windows Desktop
  + Apple MacBook
* Mobile environment(for testing)
  + Apple IPad
  + Samsung Tablet

Software

* Meta Spark Studio
* Visual Studio Code
* Version Control: GitHub
* File Management: Google Drive
* Misc: Microsoft Office Suite
* Minor: Android Studio, XCode, Flutter

# INTERNSHIP BACKGROUND

## Department Description

The Aging Research Institute for society and Education at Nanyang Technological University (ARISE@NTU) is an organisation which is a part of the NTU Wee Kim Wee School of Communication and Information. Its age-related research, programmes and activities aim to provide older adults with an interactive lifeline to the world, empowering them to live more robust, healthful and independent lives.

## Department Role

NTU ARISE (Ageing Research Institute for Society and Education) is a pan-university institute at NTU focused on ageing-related research, programmes and activities to address the demands of an ageing population.

ARISE acts as a coordinating body to synergise the efforts and resources between various groups, both within NTU and trans-organisation, to optimise the outcomes and impacts of our efforts to benefit the individuals in particular, communities and society in general.

## Department Organisation Chart

### Name and Designation of Industry Internship Mentor

Prof Theng Yin Leng, Executive Director, NTU

### Name and Designation of Industry Supervisor

Mr Thomas Koh, Project Officer

### Name and Designation of School Industry Mentor

Mr Choo Chia Fong, Senior Lecturer, NYP

## Student’s Role during the Internship

My role during the Internship was as a programmer for the I-SING project as well as help to collect data during the research studies. I also helped to keep track of office equipment as well as manage transfer/transport of equipment to and fro centres. I helped in the starting phases of software architecture design as well as the base framework for the team to use. Lastly, testing and debugging various projects to be built and exported, troubleshooting their errors.

# PROJECT BACKGROUND

## Project Name

International-Singapore Intergenerational Games (I-SING)

## Project Background/ History

The International - Singapore Intergenerational National Games (I-SING) launched by NTU, in 2016 as (SING), is a competition that engages the older generation through the use of games. After a senior centre finishes their 6 to 12 week sessions, each centre will have a mini competition to have one of their seniors be the representative during the I-SING event itself.

## Project Scope

Encourage a healthy lifestyle using modern solutions such as mobile games to allow for portability, digital access and online education.

Improve physical fitness and mental acuity via use of digital devices

## Project Description

* SHHR - An application for seniors to self-report their perceived health in a survey format. We didn't work on this project other than building and exporting it
* FB Video Calling - Meta Sparks Face Effects: using facebook’s face detection to create filters with game like mechanics as well as video calling with facebook, messenger or instagram to allow for multiplayer like connection between seniors
  + Apple Frenzy: Gravity Collection Dropper
  + Singaball: Volleyball
  + Beach Bomb: Balancing on a Tightrope
  + Step Up Right: Whack A Mole
* Scoreboard Web Application: an easy to access web browser that improves efficiency when collecting scores in a competition setting.

# PROJECT SCHEDULE

## Task Schedule

No Task Schedule as we were rotating between data collection and in-office work. refer to the internship log for exact details on work days.

## Task List

To collect data from seniors using surveys and interviews to gauge their mental acuity(MOCA) and physical fitness(SPPB).   
To test and report the various Facebook video calling effects, exporting them and testing via ipads and tablets.   
To test and build the Android APK and IOS variants of the SHHR survey app  
To research on VR headsets and suitable brands/models that could be used to develop games for future I-SING events(not used)  
To brainstorm and design various VR games(not used)  
To create a web application to collect scores using NodeJS and a database hosting service.

# PROJECT ACCOMPLISHMENTS

Collecting data from seniors with surveys and interviews such as MOCA and SPPB. Learnt about the data cleaning methods but did not work on it further. (Week 1-8)  
Learning about flutter code and exporting the various versions of executables as well as testing the emulation via the IOS IPhone Emulator within the Macbook. Learning about the build process and the required dependencies of industry standards.  
Learning Multiple languages and softwares in a short period of time as well as interacting with many seniors and staff personnel at the senior activity centers.

**END**