

Luowei Tan

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PROFILE

Creative and self-motivated 3rd-year Computer Science Co-op student at the University of Toronto Scarborough, specializing in Software Engineering. Passionate about game development, currently learning Unity Engine and create side projects. Possess high proficiency in object-orientated programming languages such Java, C#, JavaScript. Designed and Implemented a systematic online platform Being Seen that can bridge merchants, donors, and homeless youth together effectively with 4 teammates under the Agile Development Process.

Key Competencies:

- Entry Level Unity 3d development
- C#
- Object-oriented design
- Source Control (Git/Subversion)
- Agile Development
- Front-End Development(React)
- Teamwork (Gitlow)
- UI/UX design
- Data Structures
- Algorithms

EDUCATION

Candidate, Honours Bachelor of Science, Computer Science Co-op

Sep 2019 - present

University of Toronto Scarborough, Scarborough, ON

- **Specialization:** Software Engineering
- **cGPA:** 3.15/4.0

PROJECTS

Boost Game Demo

Apr 2022 - May 2022

Demo: <https://sharemygame.com/@PacosFather/boostgamepaimon>

- *Designed the mechanism of the boost game to list the features and divided them in to tier by the priority.*
- *Developed the project in Unity 3D Engine*
- *Implemented C# script Movement to enable player to control thrust and rotation by reading user input.*
- *Implemented C# script CollisionHandler to process the correct collision result depends on the tags.*
- *Designed and Implemented 3 different levels and an obstacle moving is added to give player more challenges as game progresses.*
- *Added sound effects and particle effects to specific moments such as moving, crash and success so that it provided player a strong feeling of control and their status from the user experience aspect.*
- *Built a prototype as WebGL and posted it as a public URL to provide the potential player an interactive experience with the demo.*

Doodle Jump Assembly

Oct 2020 - Sep 2020

Computer Organization, University of Toronto Scarborough, Scarborough, ON

Demo: <https://youtu.be/22HWT9o3Yf0>

- *Understanded the mechanism of popular mobile game Doodle Jump from the game design aspect to make a suitable solution with low level MIPS assembly language.*
- *Developed a series of functions such as MovementHandler, CollisonHandler, ScoreHandler to enable user's input to control Doodle to jump up, left or right to reach a higher platform to get score.*
- *Designed different levels as game progresses by dynamically increasing the speed of Doodle.*
- *Implemented additional features such as moving platform and dynamic on-screen notifications that make this game more interactive from the user's aspect.*
- *Tested final game in MARS and made a demo video to promote my game to potential player.*

Being Seen

Sep 2021 - Dec 2021

Introduction to Software Engineering, University of Toronto Scarborough, Scarborough, ON

- *Transformed the idea from product manager and implemented a website that bridges merchants, donors, and homeless youth together effectively in REST API. Frontend: React. Back End: Node.js and MongoDB.*
 - *Designed and implemented the front end of the website such as Store, Profile and login page using React MUI library to make the UI clear and readable to the users*
 - *Developed classes such as Search and Categories to enable homeless youth to search specific products or check products by a specific category.*
 - *Kept source control under Gitflow by reserving and updating code on the Git repository enable all the developers to import other developer's codes or methods in their class and check the older version of the codes.*
 - *Followed the Agile Development process by dividing the product backlog into 4 sprints so that more specific tasks can be assigned to each member.*
 - *Create and split tasks in each sprint on JIRA to schedule tasks and keep check the progressing of each team member.*
 - *Developed good teamwork by making readable and clear comments to each method and hold a meeting per 3 days so that people in the group were able to understand others' code easily, and help others solve their difficulty.*
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