

Marco Liu

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SKILLS

- **Languages and Tools:** C++, Java, C, HTML, CSS, JavaScript, Git, Unix

EMPLOYMENT

FutureTel, *Technician Assistant*

August 2018 – September 2018

- Expedited a smartphone repair process by reading and writing IMEIs, conducting IP68 tests, and managing force touch calibrations simultaneously, resulting in an increase in production
- Analyzed products for defects through thorough testing of hardware and software components
- Reorganized and compiled company inventory for employees to access and reference more efficiently
- Communicated with the QC department effectively to resolve issues and maintain a high standard of quality

PROJECTS

Automated Maze Solving Car, (C++)

- Devised and constructed an Arduino-based robotic car that determines the shortest path through a maze
- Implemented a maze solving algorithm that records and simplifies movements from an initial run, producing an optimized set of directions that results in the most efficient maze traversal

Space Defender, (Java)

- Developed a speed typing game with letter-based score and level system
- Manipulated external text files to randomly organize and display words on the screen
- Incorporated object collision, sound effects, and sprite sheet animations to simulate a space fight

Forest Runner, (Java)

- Designed and developed a side-scrolling jumping game with randomly generated obstacles and platforms
- Fixed a frame-freezing issue by ensuring the removal of platform and obstacle objects after leaving the frame
- Created an incremental difficulty system by proportionally scaling speed of scrolling objects and jump heights

Fan Page Website, (HTML, CSS)

- Designed and developed a responsive [fan page](#) website for Korean artist G-Dragon
- Enhanced user experience by implementing the parallax effect and different animations on hover

VOLUNTEERING

City of Markham, *Summer Camp Volunteer*

August 2017 – September 2017

- Guided 25+ children through the development of self-driving cars, resulting in successful showcases to parents
- Led a 3-D modelling and printing activity by helping children navigate through the Tinkercad software

EDUCATION

University of Waterloo, *Bachelor of Software Engineering*

September 2019 – Expected 2024

INTERESTS

- Fashion Design, Photography, Swimming, Travel