

Matthew Tan

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About Me

I'm an application and script developer who's passionate about PCB design, and Game Development. Currently, I'm working on my Keyboard Project and my OceanView 360 project. Some of my hobbies include hardware design, building PCs, gaming, and scuba diving.

Languages

- Python
- C++ (and Arduino)
- Java
- HTML
- CSS
- Javascript
- C# (Unity)

Skills

- Project Management and Teamwork
- Adaptability
- Problem Solving
- Communication

Education

University of Waterloo,

Computer Engineering

09/2019 – present | Waterloo, Canada

3.9 GPA

Projects

Keyboard PCB Project, C++, KiCad

A fully-functional, custom 67-key keyboard with a custom designed PCB and powered by QMK Firmware

Minesweeper, Java

A minesweeper game programmed using Java Applet utilizing queues and linked lists to do breadth-first search

Python Parallel Port Controller (DB25), Python

A series of LEDs and input buttons controlled by a DB25 connector programmed with Python to simulate a guessing game

Arduino Line-Following Robot

An Arduino Due-based robot that follows a black tape using infrared sensors

Unity 2D Project, C#

2D Unity Game with time manipulation and tracking elements and coded in C#

Professional Experience

Aritao Cable, Fiber Optic Technician

07/2019 – 08/2019 | Aritao, Philippines

- Hands-on experience in cabling layout and infrastructure development, while communicating any issues that arise to the supervisor.
- Configured a Gigabit Passive Optical Network (GPON) using an Erbium-Doped Fiber Amplifier (EDFA) and an Optical Line Terminal (OLT) at the headend, and Huawei Optical Network Units (ONU) at clients.

Mathnasium, Math Instructor and Script Developer

08/2018 – 03/2019 | Mississauga, Canada

- Worked in a team with 4 other instructors to teach K-12 Math, from basic counting to calculus and vectors, to middle school and secondary school students.
- Developed Visual Basic weighted sorting scripts to group students based on their math abilities, leading to effective targeted learning.

References

Kyle Tan, Employer, Mathnasium

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