SHIYAO WANG

shiyao2000gaga@gmail.com | (+64)0212305686 | GitHub | LinkedIn

TECHNICAL

Software	Autodesk Inventor, SolidWorks, Altium, LTspice, MS Office Suite, Arduino, Modelsim, QuartusII, Pycharm, Jupter Notebook, Android Studio, PSoC Creator
Hands on	Soldering, MIK/Arc Welding, CNC router/lathe, workbench tools
Software/Hardware Languages	C/C++, Python, Matlab, Java, JavaScript, VHDL, Esterel
Spoken Languages	English, Mandarin

WORK EXPERIENCE

asBuilt Digital November 2020 - Present
Software Engineer

- Research and development

Glenfield Pools and Leisure Centre March 2019 - June 2021
Swim Instructor

- Planning/conducting of classes
- Educate swimming to a wide age group(school age - adults)

PROJECTS

Beamforming Using Ultrasonic Arrays *March 2021 - Present*

Develop a set of beamforming receiver array to perform bathymetry in shallow waters.

- PCB and circuit designing
- PSoC (Programmable system on chip)
- Signal Processing

Load Regulator Model Using FreeRTOS *April 2021 - April 2021*

Develop a model of a load regulator using FreeRToS to concurrently execute multiple processes on a DE2 board.

- Concurrency of tasks (task priorities, appropriate data transferring, interrupts)
- Hardware usage (DE0 board, VGA screen, PS2 keyboard)

VHDL Game *May 2020 - June 2020*

Combine synthesisable VHDL components to create a game based on Flappy Bird through the use of FPGAs. The System uses a data-dominated Processor Architecture utilising a FSM. (Details can be found on GitHub)

- Schematic planning
- Synthesisable VDHL coding
- Finite State Machine
- Hardware usage (DE0 board, VGA screen, PS2 mouse)

Convolutional Neural Network *March 2020 - May 2020*

Deep Learning by using multiple different Convolutional Neural Networks for image classification of 7 different emotions through facial expressions from image input. (Details can be found on GitHub)

- Models explored (LeNet, VGG, ResNet)

Android Application *May 2020 - June 2020*

A product browsing application that allows a user to browse by category and search a specific item. (Details can be found on GitHub)

- XML Styling
- OOP System Design
- Emulator/Real Device installation testing

Analogue and Digital Design *July 2019 - October 2019*

Design and assemble device to read the Peak-voltage, RMS-current, Power-factor, Real-power of a analogue power source input and send values as 4 digit numbers to a receiver station via Bluetooth.

- PCB and circuit designing
- Software integration(ATmega328pb)

EDUCATION

University of Auckland, Auckland *March 2018 - present*
Bachelor of Engineering (Hons) in Computer Systems Engineering *4th Year (Final)*

First aid *April 2021 - present*
Level 2 Certificate

Rangitoto College *January 2013 - December 2017*
Excellence endorsement Levels 1,2,3

ACHIEVEMENTS

Microsoft Student Accelerator *Nov 2020*

- React web-app
- Microsoft Azure SQL Database
- Pipeline Deployment through Azure DevOps

Analogue and Digital Design Finalist (University Project) *October 2019*

- My group and I was placed top 5 among 33 teams
- Had the opportunity present them to industry specialist from Datamars

SDCA Semi-Finalist *January 2018*

- Compete against other high school teams at The University of Queensland
- Worked together in large groups to work on a feasible proposal for a space station

PERSONAL STATEMENT

A good team player and a fast learner that adapts to new environments. Eager to learn appropriate skill sets to be apart of developing new and relevant technology.

(References available on request)