

# **Ziyang Long**

# 18990105311 | 2429503L@student.gla.ac.uk Chengdu



#### **EDUCATION**

#### Glasgow college, University of Electronic Science and Technology of China

Sep 2018 - Jul 2022

**Electronic Information Engineering Bachelor** 

GPA: 3.56/4.0 ( major GPA: 3.64 )

IELTS: 7.0 CET6: 543

Main Courses: Digital signal processing, Field and Wave Electromagnetics, Circuit Analysis and Design

#### RESEARCH EXPERIENCE

#### An image logical operation unit inspired by human retina

Apr 2021 - Jun 2021

research assistant Photoelectric detection and sensing laboratory, UESTC

Chengdu

- · Designed bionic analog logic-gate circuit referring to the human retina
- Eliminate noise in electric currents deriving from the power source
- · Test digital logic to ensure accuracy of image processing

#### A CNN for MNIST Handwritten Digit Classification

Mar 2021 - May 2021

Introduction to Deep Learning Course Program I UESTC

Chengdu

- Established two Convolution layers and Pooling layers as the main structure of the neural network
- Adopted BP algorithm, SGD, momentum algorithm to detect and classify handwritten digits.

#### Noninvasive blood glucose detection with flexible two-dimensional materials

Jul 2019 - Mar 2021

research assistant Information materials and devices team, UESTC

Chengdu

- Applied reverse iontophoresis methods to detect glucose from interstitial fluid to the skin surface
- · Realized the analog circuit design of biological current's amplification and filter
- · Developed a website and an Android application to demonstrate the data using server in Alibaba Cloud
- Established the correlation between the peculiarity of reflected electromagnetic wave(0.5GHz-3GHz) and the
  concentration of blood glucose by using various data analysis methods predominantly involved Gaussian Process

## Portable finger pulse monitor

Aug 2018 - Jan 2019

Microelectronic System Course Program, Glasgow

Chengdu

- Built a green light detection module and connected it to an LCD screen.
- Programmed based on MBED platform adopting moving average filter algorithm to capture pulse frequency.

# LEADERSHIP EXPERIENCE

# The 7th China International College Students' "Internet+" Innovation and Entrepreneurship Competition

May 2020 - Nov 2020

Team member

- Provincial Third Prize
- Apply for a design patent: LOC(13)CI.24-02

### College Students' Innovation and Entrepreneurship Competition

Sep 2019 - Aug 2020

Team leader

- Excellent reward
- · Patent: A WIFI-based blood glucose meter cloud system