





# **Electronic Engineer**

## **PROJECTS**

### **CUBE**

A handheld device comprising of 6 OLED screens for each face on a cube. This project required design of circuits for battery management and voltage regulation, 3D modelling of the frame, as well as efficient C code to run 6 screens and a 6 DOF sensor off an ESP32.



### Orthodox

A unique ortholinear keyboard, This project required custom designed keycaps to simplify the keyboards aesthetic, as well as hall effect sensors for certain keys to allow for analog keypresses, a custom driver had to be written to allow for seamless integration of the keyboard with computers

KiCAD / FreeCAD / OpenSCAD / Git



# EXPERIENCE

RF Test Engineer Curvalux 2021-2022

- Developed all the necessary python libraries to automate radiation pattern measurements in a custom anechoic chamber.
- Translated proof of concept MATLAB code for phase tapering/beam steering a phased array antenna into working code on early prototype hardware.
- Professionally collaborated and documented git repositories.

## Research & Development Engineer

Huawei 2019-2020

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- Developed a python library to communicate with a TEC controller over the serial protocol.
- Developed a standalone program to produce failure analysis reports, saving countless engineering hours.
- Presented weekly meetings to inform senior engineers of device failures and reliability.
- Analysing reliability of devices with PAM4 / NRZ inspection, shear testing, electroluminescence inspection.

Hardware Engineer Avalon 2018-2019

- Tasked with designing and soldering the power management PCB.
- Regularly liaised with engineers from different disciplines to check compatibility.
- Presented weekly meetings to inform senior engineers of device failures and reliability.
- Managed my time effectively to balance commitments to University and Avalon.

Design Project Global Engineering Challenge 2018-2019

- Tasked with designing mobile retina scanners to diagnose diseases in Kibera.
- Designed a program capable of recognising diseases based on symptoms in people's retina.
- Pitched the idea in front of a crowd of 30+ people, receiving questions for 10 minutes.

REFERENCES		EDUCATION		
Jason Hanson jason.hansonu +44 (0)7799 0	Princial RF Engineer u@curvalux.co.uk 36 362	Bachelor of Engineering Electronic Engineering:	University of Sheffield 1st	2017-2021
Xiaoli Chu x.chu@sheffie +44 (0)1142 25		<b>A-Levels</b> Mathematics Physics Computing	<b>Dunraven</b> B B B	2015-2017
<b>Lu Zhang</b> luzhang1@hu +44 (0)7881 25		GCSEs (11 Qualifications Passed) Mathematics Science	Harris Academy A A	2010-2015

English