

# BENJAMIN ANDERSON



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## 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.

KiCAD / FreeCAD / Git



#### 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.
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#### Research & Development Engineer

Huawei 2019-2020

- Developed a python library to communicate with a TEC controller over the serial protocol.
- Designed a standalone program with PyQt to automatically produce failure analysis reports from data gathered by lab technicians, saving countless engineering hours on a repetitive manual task.
- 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

**Jason Hanson**      **Princial RF Engineer**  
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**Xiaoli Chu**      **Ph.D Wireless Communications**  
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**Lu Zhang**      **Senior Reliability Engineer**  
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### EDUCATION

**Bachelor of Engineering**      **University of Sheffield** 2017-2021  
Electronic Engineering: 1st

**A-Levels**      **Dunraven** 2015-2017  
Mathematics B  
Physics B  
Computing B

**GCSEs (11 Qualifications Passed)**      **Harris Academy** 2010-2015  
Mathematics A  
Science A  
English B