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## Personal Profile

I'm a driven and professional individual who thrives on challenges and pressure. Experience spans multiple companies during as well as post study at one of the best universities in the world. This included founding my own successful electronics design consultancy. Key areas of expertise include analogue circuit design, PCB layout, embedded C programming, System Verilog, high speed FPGA development, data analytics using Python and experience in medical development environments.

## Key skills

- Ability to learn quickly and adapt to new situations and problems.
- Working in a company adhering to the ISO13485 standard QMS and developing products to the EN 61326-2-6:2013 IVD EMC standard.
- Plentiful experience with the STM32 range of embedded MCUs as well as Altera Cyclone FPGAs.
- Electronic circuit and PCB design.
- Extensive PCBA experience from schematic capture to PCB layout, assembly to fault-finding.
- Experience developing programs and logic with embedded C, C++, Java and System Verilog.
- Data analytics using Python.
- Good knowledge of bringing products from concept to market.

## Employment summary

### Entia Ltd. – Electronics Engineer (June 2017 – current)

With Entia I have been the sole electronic engineer developing the Aptus system for fast, cheap Anaemia diagnosis. This role has seen me develop hardware from a very early prototype through to a production ready design which adheres to EN 61326-2-6:2013 IVD EMC standard. Throughout, the process has been documented to conform to the ISO 13485 quality management standard, all improvements or changes in revisions are documented and tested. A full feature mid-line test and programming rig has also been developed.

**GSW Design House – Owner and Electronic Engineer (March 2017 – June 2017)**

GSWDH continued to help London start-ups including Entia and Osprey Measurement - a forward thinking data logging provider for the civil engineering industry. Osprey requires a highly reliable, ultra-low power logger solution for on-site measurements. Sensors and communications include Vibrating Wire, 4-20mA, RS485, pulse counting, sub 1GHz networks and generic analogue voltages. All sensor designs and unique protocols were implemented in house. Further to a healthy remit of sensing, the logger is capable of transmitting data over cellular networks, RS485 buses and Ethernet, all via an STM32F4 microcontroller.

**Pencil Design House Ltd. – Co-Owner and Electronic Engineer (July 2016 – March 2017)**
Pencil DH was started to offer a service to the many aspiring entrepreneurs in the London area with ideas for a great product. Clients include Entia, an innovative company aiming to change the way patients receive heathcare. I saw Entia's product, Aptus, from an early prototype stage to production ready electronics, which required PCB layout, analogue design, DC-DC PSUs, Li Ion management and charging, Chinese component sourcing and embedded C programming on an NXP Cortex M4 microcontroller.

**Uniwheel Ltd. - Junior Electronic Engineer (December 2014 – July 2016).**
To gain more experience in work and electronic engineering I started to work with Uniwheel in December 2014. Together with the design team I worked on the company's first product - a self-balancing-uniwheel. I developed a crucial safety system to maintain device safety if the user fell off.

This involved a master controller board featuring an STM32 MCU and a series of sensors around the device to establish the wheel environment. Based on the information gathered, commands would be sent to the motor controller to control the wheel. Protocols such as SPI, I2C and UART were used. A full feature test rig was developed to program and test the boards.

**Audio Partnership PLC - Electronic Technician (June 2012 – August 2013).**
After finishing my studies at Peterborough Regional College I took a gap year to gain experience in the electronic industry. Audio partnership who own the brand Cambridge Audio responded to my application. My role required me to design and assemble prototype electronic circuits (typically analogue) for future products.

## Education/qualifications

**University College London – (Beng. with honours) Electronic Engineering**
Modules include: Electronic circuits, Digital Design, Artificial Intelligence etc.

Final year project consisted of audio extraction from HDMI media. This required the knowledge of high-speed data transmission at the hardware, protocol layers and FPGA logic to accomplish.

**Peterborough regional college - (BTEC National diploma Level 3) Electronic Engineering**
Modules include: Mathematics, Electronic circuits, Low level programming, Lab, etc.

## References

Available on request.