

Sam Kent

Phone: 07896738788 Email: sam.john.kent@gmail.com LinkedIn: /samjohnkent

Education

Electronic Engineering MEng - University Of Leeds **September 2012 - June 2017**

Year 1 Circuit Analysis & Design, Electronic Materials & Devices, Communications Systems, Fundamentals Of Electrical Engineering, Digital Electronics & Microcontrollers, Analytical Techniques

Year 2 Mobile Applications Project, Embedded Systems Project, Energy Systems & Control, Communications Theory, Transistors & Optoelectronics, High Frequency Circuits & Systems

Year 3 Digital Communications, RF and Microwave Engineering, Semiconductor Technology, Embedded Systems, Professional Studies

Year 4 Industrial placement at ARM

Year 5 MEng DSP for Communications, Data Communications and Network Security, FPGA Design for SoC, Embedded Microprocessor System Design, Industry Dissertation, Individual Project

The MEng individual project involves investigating, designing, and building a system to monitor the amount of Hand Arm Vibration a user is exposed to. This has involved experimenting with accelerometers and tools, prototyping embedded systems, processing data in both MATLAB and on board using CMSIS-DSP, and managing the time and tasks needed to complete the project.

A Levels - The College Of Richard Collyer **September 2010 – June 2012**

A Levels Electronics: A; Computing: A; Maths: A; Further Maths: B;

EPQ Extended Project Qualification: A (USB Midi Controller using an Arduino Mega to process and interface with the computer)

Employment

Demonstrations Engineer Intern (ARM) **July 2015 - August 2016**

- Building demonstrations using ARM technology
- Discussing features and implementations of demos at events/trade shows such as ARM Tech Con and Embedded World
- Projects include: Data visualiser for Sensors to Servers IoT Demo, Twitter Powered Giveaway Dispenser, Traffic Sign Recogniser, IR Touchscreen

Development Subcontractor (Freeman PC Services) **June 2011 - June 2015**

- Used a variety of programming languages – PHP, HTML, Java, C, C#
- Worked on a variety of projects – including a cyber forensics application
- Worked to deadlines and project specifications
- Interacted with clients to understand their requirements for the system

IT Assistant

July 2010

- Paid work experience
- Rebuilt servers, configured networks, PAT tested equipment, helped out with general IT problems around the office

Self Employed Web Development

2007 - June 2011

Skills

Programming

Proficiency in a range of languages used in work, education and programming at home.
C/C++; Verilog; Processing; Java; Objective-C; NodeJS; HTML/JS/CSS; MATLAB; R;

Embedded

Experience working with various embedded systems such as Cortex-M, Cortex-A, or ESP8266.
Capable of working at various levels of abstraction from low level assembly to high level such as Arduino/mbed for rapid prototyping.
Able to develop and debug with various industry standard tools: Keil-MDK, DS-5, GCC, GDB

Hardware

Capable of prototyping and building projects using various tools and materials.

Side Projects

Sound System

Designed and built a sound system that we hire out in Leeds to local parties/events

- Designed and simulated various speaker boxes to get the required sound using tools such as WinISD
- Repair broken equipment for ourselves and others e.g. Amplifiers, Mixers, and Turntables
- Managed bookings, transport, and finances for the business

Sound Reactive Lighting Installation (Video: https://youtu.be/yov_2pZkXRQ)

- Project with 2 Leeds College of Music Students; exhibited as part of Leeds Digital Festival
- A Processing application applies an FFT to an audio signal and configures the frequency response, colour, and sensitivity of 25 tubes.
- Application has a serial connection to a microcontroller that drives the LEDs

Smart Watch

Designed and prototyped a smart watch using an nRF52 development board to receive notifications from my phone over BLE

Custom Audio Mixer

Breadboarding analogue audio circuits, PCB design, troubleshooting issues