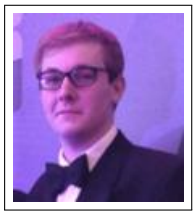

Ashley J. Robinson

Education

Oct. 2010 - Jun. 2014 **Master of Engineering**, *with First Class Honours*, in Electronic Engineering with Artificial Intelligence, University of Southampton.

Modules include Analogue Electronics, Computer Systems, Control Theory, Digital IC Design, Design and Test of Digital Systems, Electromagnetic Fields and Waves, Evolution of Complexity, Image Processing, Intelligent Algorithms, Machine Learning, Management, Semiconductor Devices, Signal Processing and Software Development

Sept. 2008 - June 2010 **A-Levels**, Alton College, Alton, Hampshire.

Electronics (A*), Mathematics (A) and Physics (A). AS-Level Computing(A).

Sept. 2003 - June 2008 **GCSEs**, Amery Hill Secondary School, Alton, Hampshire.

Art(D), Biology(A), Chemistry(A), Design and Technology(A*), English Language(B), English Literature(C), Geography(B), ICT(B), Mathematics(A*) and Physics(A)

Work Experience

Sep. 2014 - Present **Cambridge Design Partnership LLP**, Church Road, Toft, Cambridge, CB23 2RF

Consultant Electronics Engineer.

A technology and product design consultancy. Working on many cross discipline projects but remaining focused on the application of electronics; typically in consumer products. Core skills applied include analogue circuit design, PCB design and digital hardware design with concurrent low level software development. Additional skills exercised range from basic mechanical engineering to high level software development. Recently I have been involved in many projects using inertial measurement units (IMUs) and other sensors to track user behavior. This has been in the capacity of wearable technology for sports applications but also to gain user insights. A typical example would be instrumenting an existing product so a piece of electronics can wake-on-motion to log accelerometer and gyroscope data to later gain insights to use frequency and handling. Wearable sensor development has involved writing algorithms from the ground up to compute bio-mechanical metrics from raw IMU data which is then validated with motion capture equipment.

Summer 2012 Summer 2013 **Cambridge Silicon Radio (CSR) PLC**, Churchill House, Cambridge Business Park, Cowley Road, Cambridge, CB4 0WZ

Student Placement.

Working with the digital design team assisting with the development and verification of their Near Field Communications (NFC) technology. Side projects included verification of an LCD hardware driver and designing a serial to parallel converter for in-house test hardware. This was 20 weeks in total divided over two summers. I was awarded UKESF Scholar of the Year partly based upon my achievements at CSR. Each summer placement was 10 weeks long.

Jul. 2008 - Sep. 2010 **Sainsbury's plc**, Draymans Way, Alton GU34 1SS

Customer Service Assistant.

Assisting customers along with operating both traditional and self-serve checkouts.

Jul. 2006 - Oct. 2013 **M.J.Robinson Garden Maintenance**, *6 Ferney Close, Chawton, Hampshire, GU34 1SQ*,

Assistant to the head gardener.

Maintaining the grounds of homes and businesses, large and small, in the Alton, Hampshire area.

Additional Qualifications and Achievements

Jun. 2014	**Captec Award for Entrepreneurial Industrial Innovation**	*Excellence award approved by Professor Max Toti.*
Feb. 2014	**EMECS-thon Winner**	*Best "Internet of Things" Implementation at the University of Southampton.*
Nov. 2013	**UKESF Scholar of the Year**	*Presented at the National Microelectronics Institute gala dinner.*
Jan. 2012 - Jun. 2014	**UK Electronics Skills Foundation Scholar**	*UKESF is a collaboration between industry, universities and the public sector.*
2009 - Present	**Full clean UK Driving License**	

Skills

Electronics Design	Design of electronic circuits using **Altium**, **Eagle** and **KiCad** schematic capture/layout tools and **SPICE** simulations. Analogue, digital, mixed signal, switch mode power supplies, high speed digital interfaces, low power and common frequency RF.
Electronics Test	Extensive use of basic test equipment. Multimeters, oscilloscopes, programmable loads, spectrum analysers, signal generators and LCR (Inductance, Capacitance and Resistance) meters to as low as Femto Farads. Electromagnetic compatibility (EMC) testing for radiation, immunity and electrostatic discharge (ESD).
Electronics Manufacture	Prototyping skills using stripboard/copper-clad, hand assemble techniques down to 0402 passives and 0.5mm pitch discrete components, high volume (1M+/year) component sourcing, outsourcing PCB layout and working with small/large volume (1M+/year) contract electronics manufacturers (CEMs). Familiarity with EMC, low voltage and waste electronics EU directives.
FPGA	Designed digital modules in **Verilog** and simulation using **ModelSim**, **Cadence** and **Icarus**.
ASIC	Design and simulation of custom libraries and integration for **VLSI** chip manufacture using **Magic**.
Embedded Software	Developed embedded software on Atmel, Microchip and STM32 microcontrollers. Mainly in the **C** programming language and often using **FreeRTOS**.
Software	Developed CLI and GUI applications using **C#** and **Python** and basic server side applications in **PHP**.
Modeling and Simulation	In depth modeling and simulation of custom electronic components and physical principals using **Matlab** and **SciPy**. Experience with **SciKit-learn** machine learning library.
Mechanical	Basic CAD experience in **FreeCAD** and use of FDM/Polyjet 3D printing technology.
Project Management	Involved in proposal writing and planning for multi-discipline work packages. Managed projects lasting over 6 months worth £150K in company fees with a 3 member team. Electronics/software lead on several 2 to 4 team member projects.

Hobbies and Interests

Film	Avid film fan with a passion for science-fiction.
Clay Shooting	Clay pigeon shooting since the age of 16 usually sporting layouts.
Hobbyist Electronics	Audio equipment, radios and robots. Many projects using electronics and maths skills acquired from the age of 15 onward. Using microcontrollers, FPGAs and analogue circuits.
Off-Roading	Land Rover owner in the past along with a couple of motocross bikes. Lots of green laning around Hampshire.
Programming	On both Windows and Linux environments. Assembler, C, C#, PHP, Python and Verilog/SystemVerilog. Constructed my own website which contains a growing list of software projects.
Music	Enthusiastic guitar player. Broad range of music taste.

Surfing	I have been surfing for two years now and recently brought my first surfboard.
Travel	I have backpacked across India staying at hostels from Delhi to Mumbai and Goa. I have been on self organised camping trips across the USA, Scotland and Europe also many other places throughout England during my time in the Scouts. I have also toured Canada by RV and train from Vancouver to Montréal with many detours.

Contact Details

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References

Mr Richard Hunt	Cambridge Design Partnership, Church Road, Toft, Cambridge, CB23 2RF, England, UK Email: rnh@cambridge-design.co.uk Tel: +44 (0) 1223 264428
Dr Geoff Merrett	University of Southampton, University Road, Southampton, SO17 1BJ, England, UK Email: gvm@ecs.soton.ac.uk Tel: +44 (0) 2380 592775

Media Presence

CDP: Blogs	www.cambridge-design.co.uk/news-and-articles/blog/flaming-hoverboards www.cambridge-design.co.uk/news-and-articles/blog/exploding_batteries www.cambridge-design.co.uk/news-and-articles/blog/meet-ashley-our-near-field-communications-expert
ECS: Careers	blog.soton.ac.uk/careershub/2014/12/15/hearing-from-our-graduates-ashley-robinson-at-cdp/
EMECS-thon: Winner	youtu.be/0NC3W49Lj-A
UKESF-ECS: Finalist	www.ecs.soton.ac.uk/news/4376

Version Control

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