

## Chris D. Scutcher

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### Education

MEng Digital Systems Engineering / Computer Engineering Second Class Honours (Upper Division),  
University of Southampton, 2010

A-Level, BETHS Grammar School, 2005

Mathematics	B	Business Studies (AS)	B
Electronics	A	Computing	A
		General Studies	A

GCSE, BETHS Grammar School, 2003 - 14 A/A\* - 2 B

### Employment

**Cisco Systems (formerly Tandberg) - Engineer** **2010 - Present**

Responsible as a developer and Security Advocate for the Conductor product. Also involved in developing the underlying Linux platform used in both Telepresence Conductor and the Telepresence VCS.

**Critical Software Technologies Ltd - Engineer** **2008 - 2010**

Involved in numerous safety critical projects. Managed SHARE; Sharing open source middleware to improve industry competitiveness in the embedded systems domain. Interacting with the international SHARE consortium, including attending and speaking at multinational conferences both in the UK and overseas.

**Electron Dynamics - Engineer** **2008**

Design and development of replacement company website using PHP5, Drupal and MySQL. Developed use of open source technologies within the company.

**NXP Semiconductors - Research Development Engineer** **2007**

Research, development and implementation of Linux DirectFB based GUI front end for IP Set-top-box (STB810, STB225). Development and implementation of remote working method, trialled with engineers on-site in China.

**Structuretone PLC - Assistant IT Manager** **2005 - 2006**

Administrator and in-house developer [ Part-time ]

### Project Experience

**Telepresence Conductor**

Cisco Systems **2010 - Present**

Telepresence Conductor is a Linux based application designed to manage conferencing hardware on large video networks. Harnessing vast numbers of conference bridges its aim is to ensure seamless experience with minimal admin interaction. Working in a small tight knit team using mainly Python with Twisted for the main application development, Erlang for Mnesia database transactions and PHP for the web front end.

**Pragmap Project**

University of Southampton **2009-2010**

In this project I led a small team to develop a pragmatic approach to rapid tactical mapping for an industry sponsor. This project proved the feasibility of producing map and routing information from low cost aerial photography.

**SHARE; Sharing open source middleware to improve industry competitiveness in the embedded systems domain.**

Critical Software Technologies Ltd

2008-2009

Aims to facilitate open source software code sharing and utilisation within the embedded systems domain, creating a nurturing environment for applications and solutions to be developed on OSS middleware, paving the way for new business models and services. SHARE is an international project made up of a consortium of companies.

**Open Source Safety Certified Toolchain**

Critical Software Technologies Ltd

2009

The project is intended to help design an end-to-end toolchain to produce certifiable safety-critical software. It will make use of open source software, safety standards (such as the DO-178B) to produce an automated process that supports the development lifecycle, from concept through requirements management to in service upgrade.

**Colony Project**

University of Southampton

2007

Innovative open source strategy game making use of real life stigmergetic and emergent agent-based processes written in C++ using Ogre3D engine for a Linux platform. [ Third year project ]

**NXPerience GUI**

NXP

2007

Development and implementation of innovative embedded GUI for IP-TV using DirectFB, C, C++ on a Linux platform.

**Underwater Telecommunication Network Branching Unit Demonstrator**

Engineering Education Scheme

2005

Led team in Engineering Education Scheme arranged by the Royal Academy of Engineering to design and build fully working professional level project with Alcatel. My team and I successfully produced, presented and documented the Underwater Telecom Network Branching Unit Demonstrator for use by Alcatel. I was awarded with the Crest Gold Award for this project.

**Web-based democratic shoutcast jukebox**

2004

Development of software in PHP

**Website Project**

2000 - 2006

Built, hosted and maintained successful web community.

**Technology Experience**

Python

Twisted

Erlang

Git

Django

Linux (Gentoo, Ubuntu, Arch Linux)

PHP

Drupal

C/C++

LDRA

## Personal

My passion for electronics, computing and just about anything to do with technology, started at a young age. I took apart and reconstructed anything that beeped or whirred to see how it worked. Today, I remain insatiably curious about all aspects of technology.

From 2004 to 2005 I worked with Structuretone PLC, as a temporary IT Co-ordinator and In-house Developer. My duties entailed working with both their Head Office and International Clients, planning, setting up and maintaining essential systems. This has also given me experience and an insight into how technology is put to use in a business environment outside a strictly engineering environment and its potential problems.

In the summer of 2007 I was employed in the set-top-box department at NXP researching, developing and implementing a replacement testing GUI aimed at both engineers and potential clients. This was particularly useful experience for one of my main interests, embedded computing, and also helped develop my C/C++ skill, also furthering my experience of innovative GUI design.

I completed MEng Computer Engineering in July 2010. This degree has given me extensive theoretical and practical knowledge over a uniquely wide range of topics covering high level software design to low level digital design and test. It has also allowed me to get involved with interesting technological niches such as evolutionary algorithms, bioinspired engineering and formal validation.

From 2008 to 2009 I took a gap year to work in industry at Critical Software Technologies Ltd where I had a chance to concentrate on the development of safety critical certified software and its verification. This has given me unique experience of highly reliable and robust software that is developed on-budget and on-time. During my time at Critical Software I had experience with common software safety standards such as the DO-178B and its application in development. I was also lucky enough to gain significant experience in independant validation and verification using LDRA.

After completing university I began work at Tandberg shortly after its acquisition by Cisco. Here I worked initially on the platform and web frontend for the Telepresence VCS. I went on from this to join the new team developing a new key part of the Telepresence video conferencing solution called Conductor, which is designed to manage and monitor vast amounts of specialised conference hardware and allow cascading, fallover and management for conferences. In this capacity I have greatly improved my experience in Python, especially using Twisted, the event driven networking library. I have been required to become comfortable working with the functional language Erlang which is used to make transactions in the backend Mnesia database. I am also responsible as the security advocate for the team which means encouraging security development practices and enforcing the Cisco Secure Development Lifecycle for Conductor.

Although in my work I often use Windows based software, I have a preference towards Linux and the open source movement and prefer to use it in development.

My main areas of interest are embedded, pervasive computing, biologically inspired engineering, stigmergy and emergence. I enjoy solving problems in new and innovative ways, and often look to design and experiment with new ideas in my own time.

Outside of work I enjoy seeing an eclectic array of live music. In the past I have volunteered for Anti-Slavery International working at the bars at Reading Festival which was an exciting experience, very different from my usual work. I also have an interest in philosophy, reading and foreign film.