CURRICULUM VITAE

MEREDYDD LUFF

meredydd@senatehouse.org

I WANT TO:

Work with talented people, building interesting and worthwhile computing systems that make somebody's day more pleasant.

EDUCATION

PhD Computer Science, University of Cambridge   2009-2012 *(est.)*
> Title: *"Communication for Programmability and Performance on Multi-Core Processors"*
> Contributions include a human-subject study on programming usability, the use of fine-grained communication to tackle the serial overhead problem in Software Transactional Memory, and a simple, virtualisable inter-core communication facility for cache-coherent multi-core processors.

BA Natural Sciences, University of Cambridge   2004-2008
> Part 2g (Computer Science)   *1st class (top of year)*
> Part 2 (Neuroscience)   *2.i*
> Part 1B (Cells and Development, Physiology, Neurobiology)   *2.i*
> Part 1A (Mathematics, Physics, Biology of Cells, Physiology)   *1st class*

Winchester College (academic scholar)   1999-2004

ENTREPRENEURSHIP

Created a popular mobile instant messaging platform, as a part of Greetings Unlimited Inc (www.gooey.ph). It is marketed in the Philippines as *Sun iMessenger* and *Bayan Chat*, and is now one of the most widely-used and profitable value-added services on the Sun Cellular mobile network.   *(2004-present)*

PREVIOUS WORK

Google
Implemented the Capsicum sandboxing API on the Linux kernel, for evaluation by the ChromeOS team, during a three-month internship. This involved modifications to system call dispatch, file descriptors, and process management. Rated "exceeds expectations" in performance review.   *(April-July 2012)*

Meridian Audio
Sponsorship by Meridian Audio, a high-end consumer audio manufacturer, involving holiday work in manufacturing process, embedded and digital signal processing development during my undergraduate degree.

> Integrated iPod docking and playback control into the Meridian F80/M80 tabletop Hi-Fi system. Also created an interactive debugging system to dynamically execute C code on an embedded ARM system, including an on-the-fly ELF linker. *(Summer 2007)*

> Research into the effects of quantisation noise when using the Fast Fourier Transform for efficient digital FIR filtering, and strategies for mitigation. Implementation on SHARC DSP. *(Summer 2006)*

> Automated video test equipment for high-end video projection equipment, and created an extensible domain-specific language for construction of further test sequences. *(Christmas 2005)*

> Designed and implemented (hardware and firmware) a home-automation adaptor to control Meridian products over a proprietary communications bus. *(Summer 2005)*

> Prototyped a test management system for QA in a production environment. *(Summer 2004)*

OPEN-SOURCE DEVELOPMENT

Selected code contributions

Maintainer of the Everybuddy multi-network instant messenger project from 2001-2004. Developed the *eb-lite* subproject as a research platform for human-computer interaction with IM.

Contributing the execveat() system call to the Linux kernel (patch under submission, 2012)

Contributed patches to the reference implementation of the Clojure language (2008).

Ported TCL/Tk to the Maemo graphical environment for the Nokia 770 internet tablet (2006).

Wrote *libmsn2* – the most widely-used open-source library for MSN Messenger client functionality in the mid-2000s.

Credited with scripting assistance for *The Linux Cookbook* (Carla Schroder, pub. O'Reilly 2004)

Advocacy

Contributing member of Linuxchix, an organisation to support and promote women in computing, and the Open Source community in particular.

PLATFORMS AND SKILLS

Weapons of Choice: Clojure (Lisp), Java (desktop, server and mobile), C
Completed projects in: Javascript/DHTML/jQuery, C++, PHP, TCL, VB.net
Assembly: ARM, MIPS, Nios II, PIC, SHARC DSP
Digital Logic for FPGA: Verilog, BlueSpec
Would like to learn/use: Python, Scala, Ruby, Go

Platforms: Linux by choice
Multiple embedded platforms (ARM, DSP, Nios/FPGA, PIC, Linux kernel)
Some high-level Windows development (wxWindows, TCL/Tk, VB.net)

PUBLICATIONS AND WRITING

Empirically Investigating Parallel Programming Paradigms: A Null Result
In Proceedings of the First Workshop on Evaluation and Usability of Programming Languages and Tools (PLATEAU), Orlando, 2009

Asynchronous Remote Stores for Inter-Processor Communication
In Proceedings of the Second International Workshop on Future Architecture Support for Parallel Programming (FASPP), Portland, 2012

The Green Counter-Revolution: Iran Steps Up Its Digital Offensive (2011)
For the Royal United Services Institute: rusi.org/analysis/commentary/ref:C4E5F66F731EAB

TEACHING

Supervised (tutored) the Foundations of Computer Science (ML), Object-Oriented Programming (Java), Operating Systems, and ECAD (Verilog) courses for undergraduate students at the University of Cambridge between 2009 and 2011.

Demonstrated for practical classes in the ECAD (Verilog) course at the University of Cambridge, from 2009-2011. Taught at the Sutton Trust summer school for Computer Science in 2010.

IN MY SPARE TIME...

I have competed for the Cambridge University ballroom and Latin American dance team in inter-university, open circuit and Varsity competitions, winning Best Cambridge Modern Couple in the Challenge Shield competition at the Varsity match of 2007. I most recently trained with XS-B, a formation Latin dance team, in autumn 2011, but I am sitting this season out while I finish my PhD.

I hold a UK/JAR private pilot's licence (granted 2010), and fly recreationally. I also hold a UK IMC rating (granted 2011) and am currently working towards a UK Night Qualification.