John O'Shea

Experienced Engineer and goal oriented self learner with a demonstrated history of working in the high tech industry. Strong engineering professional skills in Embedded Software, Device Drivers, C, C++, Verilog, FPGAs, Python. Also have knowledge in computer vision, AI, and Robotics. Five Patents Granted: (7987229, 8156220, 8090789, 8645623, 7631128)

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LinkedIn: https://www.linkedin.com/in/john-oshea
Github: https://github.com/jfoshea

Education:

University of Limerick (Ireland) 1997-2001 (part time)
- MEng Computer Systems Engineering.

Dublin Institute of Technology (Ireland) / British Computer Society 1992-1996 (part-time)
- Degree in Computer Science

Cork Institute of Technology (Ireland) 1988-1991
- Associates Degree in Electronic Engineering

Skills: C/C++, Embedded Firmware, Linux application/kernel/device driver development, U-boot, Buildroot, ASIC/FPGA design, Verilog, CPU Knowledge (ARM, ARM64, X86, Tensilica), Python, Networking, UEFI development, Git, Svn, BASH scripting, Matlab

Awards: 5 Patents Granted. Granted Patent Numbers (7987229, 8156220, 8090789, 8645623, 7631128).

Work Experience:

Dell EMC, Hopkinton, MA. October 2016 – Present: **Principal SW Engineer.**
- Developing C and Python code for a number of embedded Linux applications for server & storage enclosure management.
- Contributing to in house custom BMC firmware stack. Developed platform specific adaptations in u-boot, Linux applications, kernel, drivers for various for different server and storage products.
- Porting BMC (U-boot/Linux kernel) to new hardware platforms.
- Porting / Developing code for ARM, ARM64, X86 platforms.

EMC Corporation, Hopkinton, MA.

January 2014– October 2016: **Principal SW Engineer.**
- Developing C and Python code for a number of embedded Linux applications for server & storage enclosure management.
- Contributing to in house custom BMC firmware stack. Developed platform specific adaptations in u-boot, Linux applications, kernel, drivers for various for different server and storage products.
- Porting BMC (U-boot/Linux kernel) to new hardware platforms.
- Porting / Developing code for ARM, ARM64, X86 platforms.
- Port Network OS to ARM64 platform.

January 2012– January 2014: **Principal SW Engineer.**
- Developed C++ Embedded Firmware on various IA platforms and SOC protocol ASICs.
- Developed C++ UEFI Applications Device Drivers.
- Collaborated with 3rd party vendors for UEFI Device driver development.

June 2010 – December 2011: Principal HW/FW Engineer.

- Developed InfiniBand Exerciser for VMAX Data Storage product.
- Influenced the design and direction of the project.
- Developed a python framework and embedded C code for the project.

January 2006 – June 2010: Principal HW/FW Engineer.

- Developed a family of custom ASICs targeted to the Symmetrix Data Storage products.
- Led architecture and design of custom Tensilica embedded processors and firmware development.
- Acted as Technical Leader on the Firmware architecture and development.
- Developed C code to run on embedded Tensilica processors.
- Developed hardware design using Verilog and Cadence tools.
- Responsible for co-design of hardware vs firmware tradeoffs and optimizations.

January 2001 – December 2005: Senior HW Engineer.

- Developed a family of FPGAs targeted to Symmetrix Data Storage products.
- Developed hardware design using Verilog and Cadence tools.

January 2000 – December 2000: Senior Engineer.

- Responsible for Engineering Design Support Vendor selection and qualification.

EMC Ireland June 1993 – December 2000: **Test Engineer**.

- Started an internal environmental test department.
- Responsible for setting up specialized test equipment, developing the test strategy and training.
- Responsible for both test and board/component level debug.
- Responsible for ASIC/FPGA vendor qualification.

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AMDAHL Corporation, Dublin Ireland. June 1992 - June 1993: **Test Engineer**.

- Assigned to Test Engineer role for the Amdahl 5995M mainframe.
- Responsible for board level test and debug of various elements within the mainframe.

Cork Institute of Technology, Cork Ireland. February 1992-June 1992: **Research Assistant.**

- Designed & Implemented a “Talking Multi-meter”.
- Responsible for the design of an 8051 Embedded Microcontroller and a TI speech synthesis chip for taking electrical measurements as input and used synthetic speech to output the result of the measurement.
- The project included both hardware design & software development using the 8051 assembly language.