DALE WHINHAM

Student of Computer Science, Newcastle University

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PROFILE

A highly-motivated, passionate and inquisitive programmer, electronics enthusiast and musician. Currently in my third year of a Computer Science BSc degree at Newcastle University, looking to progress on to an MSc in Games Engineering.

Formerly an IT Manager at a multi-national aerospace engineering company, I left after 4 years of service to pursue my dream of turning my coding hobby into a successful career in software engineering.

I'm looking to join an enthusiastic and vibrant team so that I can expand my knowledge by learning from the best, and for the opportunity to apply my skills and flexibility in order to contribute to exciting new projects.

RECENT PROJECTS

ARM Mali SDK Code Samples — http://malideveloper.arm.com

A C++ and OpenGL ES native Android code sample, demonstrating how to use multisampled frame buffer objects and render-to-texture to achieve efficient anti-aliasing on the ARM Mali series of mobile GPUs.

PeugeotPod — personal project, can be shown on request

A homebrew car iPod interface, using PIC and ARM microcontrollers to communicate with the car's data bus and emulate a CD changer. Programmed in C.

MilkyTracker — http://milkytracker.org

I ported this open-source cross-platform music editor to Cocoa (macOS) using Objective-C and OpenGL in order to remove its dependency on Carbon and other deprecated Mac APIs. This has given me substantial experience in mixing C, C++ and Objective-C together in one project.

Other contributions include bugfixes and updates to the app's Mac sound driver (Core Audio), and a port of the app from SDL 1.x to SDL 2.x for Linux targets.

SKILLS

Programming

C ▪ C++ ▪ Objective-C
Java ▪ Assembly (ARM, x86)

Visual Studio ▪ Xcode ▪ IntelliJ
Android Studio ▪ Eclipse

Git ▪ Subversion ▪ Bash
Unix command-line ▪ SSH

macOS ▪ Android
OOP ▪ MVC design pattern

Cross-platform development
Cross-compilers & toolchains

PHP ▪ SQL ▪ HTML5 ▪ CSS
JavaScript ▪ Perl ▪ XAMPP

Libraries and Frameworks

SDL ▪ OpenGL (and ES)
Cocoa

Operating Systems

macOS ▪ Linux
BSD family ▪ Windows

ACHIEVEMENTS

HackNE 2014 — **Hosted at Hancock Museum, Newcastle**

Participated in a Hackathon in a team with three other students. Awarded the main prizes from two sponsors (Bloomberg and Bede Gaming) for best use of APIs and for our creative use of hardware (Arduino/LED matrices).

EDUCATION

2013-present: BSc Computer Science — **Newcastle University**

Relevant modules: Programming (91%), Mathematics (83%) Computer Architecture (78%), Algorithms Design/Analysis, Operating Systems, Software Engineering, Databases.

2012-2013: Access to HE Diploma — **Newcastle College**

Mathematics, Physics, IT - achieved Distinction in all three.

2003-2005: Secondary Education — **Dame Allan's Schools, Newcastle**

9 GCSE subjects, grades A*-B.
AS-levels in Music Technology (A), ICT (B), English (C).

EMPLOYMENT

2015-2016 (placement year): Intern Software Engineer — **ARM Ltd.**

Developed code samples for the ARM Mali graphics SDK during a summer internship. Later worked on power management firmware for ARM-based system-on-chips.

2014 (June-August): App Developer — **Newcastle University**

Designed and implemented an Android app and PHP/MySQL backend to help students receiving support and counselling from the Student Wellbeing Service.

2008-2012: IT Manager — **P3Voith Aerospace Ltd.**

Responsible for all aspects of IT within the company, including procurement and deployment of hardware and software, and providing one-to-one technical support to employees across three UK offices.

REFERENCES

I would be delighted to provide references on request.

Other Skills

- Ability to take responsibility for work and work independently
- Ability to work under pressure and meet deadlines
- Adaptable, flexible, and quick to pick up new development tools and techniques
- Good at problem-solving
- Great team-working skills
- Great communications skills
- Excellent written English
- Excellent documentation and code-commenting skills
- Great debugging skills; familiar with Visual Studio, Xcode and IntelliJ built-in debuggers
- Strong understanding of C pointers and dynamic memory allocation
- Some understanding of multithreading and thread-safety
- A deep enthusiasm for all things electronics, especially embedded microcontrollers such as PIC and Atmel
- A love of graphics and audio-related programming
- A love of "close-to-the-metal" programming; enjoy producing code that directly accesses the hardware or operating system