NEIL DURANT

Personal Details

Name	Neil Durant
Sex:	Male
Date of birth	8 February 1970
Nationality	British
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Qualifications

1988-1991 Churchill College, Cambridge University, England
MA (Hons) in Mathematics, 2:1

1986-1988 Selby Tertiary College, North Yorks, England

A-levels:	Maths	A	Further Maths	A
	Physics	A	Chemistry	B
STEP-level	Maths grade 1			
S-level	Maths grade 2			

1981-1988 Selby Grammar School, North Yorks, England

O-levels:	Mathematics	A	Tech. Drawing	A
	Physics	A	Chemistry	B
	Biology	A	French	B
	English	B		

Previous Work

Jan 2004-Present: Various non-commercial projects
I have spent this period developing new software engineering skills and participating in a number of open-source projects. I have been leading a team of open-source software developers on a project to develop a cross-platform, open-source C compiler for the Savage Innovations OOPic microcontroller, primarily involving the use of C and Python, which will ultimately run on Windows, Linux and MacOSX. In addition, I have been working on my own on the development of a "Lint" language verification utility for the Verilog hardware description language, using C++.
Skills used: C, C++, STL, Python, Flex, Bison, Bitkeeper

Aug 2002-Dec 2003: Fidelity Investments, Tonbridge, Kent, UK (contract)
I worked in the Architecture Team for the development of "I2", an in-house framework for the creation of business applications. The I2 framework is built on the Mozilla runtime environment, which allows the application user interfaces to be created using the powerful XUL markup language, with the

underlying logic written in javascript. My work involved the development of object-oriented javascript APIs that provide a unified interface onto the company's various backend systems, extensions and enhancements to the Mozilla runtime environment (primarily in C++), and the development of custom user interface controls. In addition, I created a number of conversion utilities, mostly in C++ and Perl, to allow the automatic translation of legacy application code into I2-compatible applications.
Skills used: VC++, STL, Perl, XML, RDF, XPCOM, Flex/Bison, gcc, Cygwin, javascript, Bitkeeper, PVCS

Oct 2000 - Dec 2001: Wacom Europe, Germany (contracting from home)
I worked on the development of hardware drivers and applications on Palm PDAs to control a Wacom graphics tablet. The work was primarily in C++ on PalmOS, with some C++/MFC on the PC for Palm conduit development. In addition I wrote a simple drawing program in C++ for the Nokia 9210 Communicator (EPOC) driven by a Wacom graphics tablet connected to its serial port, as a proof of concept demonstration. The role involved the use of RS232 for controlling and reading data from graphics tablets, and some serial debugging and reverse-engineering, as the graphics tablets were only part-working prototypes in some cases.
Skills used: VC++, C, C++, MFC, PalmOS, Symbian/EPOC, CodeWarrior, Visual Sourcesafe, RS232

Mar 2000 – Sep 2000: Fidelity Investments, Tonbridge, Kent, UK (contract)
I designed and developed a server-based system to perform complex transformations on a constant stream of business data, in preparation for printing out as statements etc. The software, written in C++ with heavy use of STL, was designed to be generic, so that non-programmers could redefine how the system transformed the data as requirements changed. Data came continuously in 60Mb chunks, and the system was required to process the data in a failsafe manner unattended, handling and reporting errors in the incoming data accordingly.
Skills used: VC++, C, STL, AS/400, AIX, MFC, Win32, NT services, Perl, PVCS

Oct 1997 – Mar 2000: Demon Internet, Dorking, Surrey, UK
I worked as part of the GUI team on a ground-up redesign of their Turnpike e-mail client and newsgroup reading software for PCs. The project involved a complete reworking of the user interface, improved component design to allow future flexibility, and the addition of substantial new functionality. The software was written in C++, and used MFC, STL and COM.
Skills used: VC++, STL, MFC, COM

Oct 1991 – Oct 1997: The National Physical Laboratory, Teddington, Middlesex, UK
I worked on the development of ultra-accurate solid-state optical detectors, for use in leading edge optical measurement systems. The work involved the development of mathematical modelling software to aid the understanding of

the solid-state physics of the detectors, and also the laboratory testing of actual devices manufactured to my specifications.
Software skills used: Turbo C++, Turbo C, Turbo Pascal, Matlab, MathCad

Primary software development experience

- C/C++ (6 years commercial experience, 5 years non-commercial before that), targetting MS Windows XP/2000/NT/9x and Linux/Unix
- STL and generic programming
- Perl
- Object oriented javascript

Other Software Development experience

- OOA/OOD, design patterns, use-cases
- MFC, Win32 SDK, development of NT services
- COM and XPCOM
- Language parsing / code generators (Lex, Yacc, Flex, Bison)
- Mozilla XUL technology
- XML, some exposure to XSLT
- SQL (MySQL), and Perl DBI
- Extensive Linux experience (mostly Debian, Gentoo and Redhat)
- Experience of working on open-source software projects
- Some Python exposure
- Some Java exposure
- Some exposure to Trolltech QT

Tools/technology Experience

- Source control software (PVCS, Visual Sourcesafe, CVS, BitKeeper)
- IDEs – Visual Studio, Kdevelop, Emacs, vi, Metrowerks CodeWarrior
- Standard GNU UNIX tools (gcc, gdb, sed, shell programming etc)
- Documentation (LaTeX, PDF, HTML and CSS)
- Issue / bug tracking software (TestTrack, Test Director)
- Unit-testing frameworks, including JUnit and JSUnit

Embedded software

- Embedded software – C on 8051, PIC family and OOPIC devices
- Z80 assembler
- I2C, RS232 communications protocols
- Familiarity with digital electronics design/interfacing
- Palm / PalmOS development
- Some Symbian/EPOC development exposure

Other technical interests

- Robotics
- Artificial intelligence
- Music, MIDI, sound manipulation / synthesis