

# **Donald Carr**

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**Objective:** I thrive in, and seek, a dynamic environment where I can play a multitude of technical roles and will be exposed to a variety of problems. I have found both development and technical support roles distinctly rewarding, and will whole-heartedly embrace any opportunity to further develop my existing Linux/C++ skills. Above all else, I want to be a productive and resourceful member of a lively talented team, and to provide a tangible invaluable contribution in the face of any challenges this team may face.

## **Work Experience**

- **Digia USA Inc: Senior Consultant, Silicon Valley, USA, 09/15/13–Present**
  - Core skills exercised on a day to day basis include Qt, Python, standard C++, Linux, git, bash
  - Working with/tracking/extending the Qt code base on a daily basis
  - Responsible for architecting the Linux stack supporting a dedicated digital whiteboard in broad deployment
  - Responsible for designing and deploying a continuous update mechanism used to propagate changes to deployed whiteboards
  - Responsible for automating the provisioning (off stock Ubuntu) of said digital whiteboard to increase throughput/consistency
  - Responsible for implementing a buildbot CI system to govern/observe all internal repos
- **Sencha : Senior Software Engineer, Silicon Valley, USA, 09/01/12–09/12/13**
  - Core skills exercised on a day to day basis include standard C++, C, GTK, GLIB, Linux, git
  - Working with/tracking/extending the Chromium (Webkit/Blink) code base on a daily basis
  - Designing, implementing and extending additional Javascript APIs extended within Sencha Desktop Packager
  - Small development team ensures that everyone touches (Implementation, debugging and building) all platforms (Mac, Linux, Windows)
  - Shipping Sencha Desktop Packager, a cross platform web runtime, with consistently spaced releases and satisfying the needs of our primary internal consumer, the Sencha Architect team
- **Nokia : Principle Engineer, Silicon Valley, USA, 03/01/09–09/01/12**
  - Core skills exercised on a day to day basis include Qt, C++, QML, Linux, git
  - Involved in identifying, communicating and bridging the gap between customer requirements, common/likely Qt pain points and the inherent capabilities/limitations/quirks of a variety of embedded boards/devices from vendors such as Broadcom, Sigma Designs, Intel, TI, Freescale, Trident, Nvidia and AMLogic (all of whom I have worked directly with)
  - Directly responsible for Qt bring up, debugging, optimization and hand off on a subset of the above devices
  - Heavily seasoned with embedded Linux (across all its manifestations) development, system intricacies, cross compilation and toolchain related complications

- Experienced at building any part of the Linux stack for a prospective embedded device and familiar with many broadly available platform solutions and vendor specific Linux platforms
- Responsible for Qt advocacy and architectural justification at customer meetings, trade shows and global developer events
- Responsible for conceptualizing, pioneering and then actively developing Qt Media Hub as part of a three man development team
- **Wimba Inc.: Software Engineer, New York, USA, 09/01/07–02/28/09**
  - Part of a small team actively developing (planning, specing, designing, implementing, testing and debugging) and deploying a cross platform video enabled XMPP chat client targeting the education sector (product URL: [http://www.wimba.com/products/wimba\\_pronto/](http://www.wimba.com/products/wimba_pronto/))
  - Product comprises a large Qt C++ codebase and a large set of associated 3rd party libraries that need to be actively maintained
  - Directly responsible for several key modules in product and comfortable with the general design/implementation of functional modules from first principles
  - Responsible for build system (qmake) and extending project with accessibility and internationalization support
  - Developing with mac/vs2005/mingw development toolchains
  - Responsible for NSIS and DMG installer configuration scripts
  - Release Manager responsible for automated deployment scripts and all deployed releases
  - Responsible for setting up and maintaining an automated Buildbot based build system
- **Trolltech ASA: Support/Presales Engineer, Oslo, Norway, 02/01/06–06/30/07**
  - Intermediary role between internal and external developers
  - Qt/X11, Qt/MinGW and Qtopia Core (Qt/Embedded) specialized support engineer
  - Troubleshooting, assessing and debugging foreign (external) and internal code
  - Expert with the GNU/X11 development environment and the associated tools
  - Experience with cross compiling and deploying Qt/Qtopia applications to embedded targets
  - Example design & creation using Qt/Qtopia Core (Rapid proof of concept design, live coding)
  - Training customers (developers), demoing Qt and dealing with large technical audiences in QA sessions
  - Managing a dynamic task list under solid time constraints

## **Education**

- **Bachelor of Science Honours Degree (BSch) at Rhodes University, Grahamstown, South Africa, 2005**
  - Double major, distinction in both Computer Science and electronics
  - Awards
    - \* Best Short Paper: “Extending reinforcement learning to Tetris”
    - \* Best Computer Science Honours Project/Thesis: “Adapting Reinforcement Learning to Tetris”
    - \* Awarded: Science Faculty Dean’s list, Academic Half-Colours
    - \* Merit scholarships awarded: Honours, JK Bennie Bursary, Trevor Williams, Postgraduate Assistance Bursary, Masters
- **Bachelor of Science Degree (BSc) at Rhodes University, Grahamstown, South Africa, 2002–2004**

- Double major, Computer Science and Physics, Distinction in Computer Science
- Awarded: Science Faculty Dean's list, best C++ project, academic rebate scholarships
- Rotary exchange student, Lillehammer, Norway, 2000
  - Fluent in Norwegian
- Carmel Crawford College, Durban, South Africa, 1997-1999
  - Distinction in history and computer science

### **Skills**

- C++, QML, C, JavaScript, Bash scripting, Java, Python,  $\text{\LaTeX}$ , C#, Haskell, Turbo Pascal, Matlab
- C++ development/debugging/deployment on Mac, Linux and Windows
- Linux adept. Particularly familiar with Arch(6 yrs), Ubuntu(8 yrs) and Gentoo(8 yrs) Linux.
- Cross compilation for embedded devices
- Expertize with Git, Subversion, Perforce
- Microprocessor programming (target specific assembly in both cases)
  - Atmel microprocessor
  - Motorola DSP
- Adept at numerical methods; comfortable with, and interested in, sophisticated algorithmic problems
- Deep interest in reinforcement learning, genetic algorithms, neural networks and the broad field of artificial intelligence. Successfully extended reinforcement learning to an established problem

References available upon request