Donald Carr

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Objective: Play a key role in developing and shipping desirable hardware/software which sees broad adoption and tangible market success.

Work Experience

- **Nokia : Qt (C++) Professional Services Engineer, Silicon Valley, USA, 03/01/09–Present**

  – **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.: Qt (C++) Software Engineer, New York, USA, 09/01/07–02/28/09**

  – **Part of a small team actively developing (planning, speccing, 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/)**
  – **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: Qt 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, 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