Gareth B Ferneyhough

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(775)250-8441

Education

- **University of Nevada, Reno** — Reno, NV
  Master of Science in Computer Science and Engineering - GPA 3.5 — *Spring 2013*
  - Course Work: Optimal Control and Reinforcement Learning for Systems with Dynamics, Advanced Software Project Management and Development, Human-Computer Interaction, Network Architectures and Economics, Computer Vision, GPU Parallel Computing, Excitable Cells Modeling
  - **Thesis: A Python Library for Ion Channel Modeling**

- **University of Nevada, Reno** — Reno, NV
  Bachelor of Science in Computer and Information Engineering — *Fall 2010*
  - **Senior Project: Real-time audio processing on Xilinx FPGA with graphical user interface**

- **Växjö University** — Växjö, Sweden
  Semester-long Study Abroad Program — *Spring 2009*

Experience

- **Hamilton Company** — Reno, NV
  Software Engineer — *August 2012 – Present*
  - Designed, developed, documented, and released high-visibility software projects as the lead C++ developer
  - Developed and maintained robotics control and support software using C++, C#, .NET, WPF, and Python
  - Experimented with integrating modern tools such as Python with legacy systems
  - Modernized and supported the source control, and build and deployment processes for a large C++ codebase

- **Self-Employed** — Reno, NV
  Freelance Embedded Software Developer — *August 2013 – Present*
  - Awarded and completed several contracts for the development of networked industrial control software on PIC microcontrollers
  - Gained experience implementing multichannel PID controllers, PWM, network protocols, and I2C and SPI communication
  - Assisted in board bring-up and hardware debugging
  - Improved C programming skills due to the demands of tight timing and memory constraints

- **Brain Computation Lab, University of Nevada, Reno** — Reno, NV
  Graduate Research Assistant — *Fall 2010 – Fall 2012*
  - Researched and implemented new emotional speech recognition techniques using Python, Matlab, C, and C++
  - Implemented sound and video processing components and integrated them into virtual neurorobotics scenarios
  - Assisted in authoring, editing, and reviewing journal and conference papers
  - Developed proficiency in finding, compiling, and using a wide variety of software libraries under Debian Linux
  - Provided programming and Linux administration support to other lab members

Skills

Languages: C++, C, C#, Python, Matlab, LaTeX

Areas of interest: Embedded development, operating systems, systems programming, networking, distributed and high-availability systems, backend web development, data visualization, data structures and algorithms

Other interests: Aviation, history of space flight technology, robotics, music performance, snowboarding, scuba