Gareth 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*
  - Worked on multi-disciplinary engineering teams to design and develop software solutions for internal and external use
  - Implemented several graphical applications for robotics calibration and verification using C#, .NET, and WPF
  - Revolutionized the build and deplopyment process for a large C++ project
  - Explored several ideas for embedding Python into our legacy products to give them a new breath of life
- **Self-Employed** — Reno, NV
  Freelance Embedded Software Developer — *August 2013 – Present*
  - Developed embedded software solutions for industrial heating control systems
- **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 Linux
  - Provided programming, computer, and moral support to other lab members
- **Evolutionary Computing Systems Lab, University of Nevada** — Reno, NV
  Undergraduate Research Assistant — *Spring 2010 – Fall 2010*
  - Maintained and improved Python 3D game engine
  - Implemented new sky, water, and boat wake effects for 3D game engine
  - Wrote several Python scripts to convert between different 3D model formats

Skills

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

Technologies: Visual Studio, GCC, Git, Amazon Web Services, Django

Other: Proficient in developing, running, and debugging software under Debian Linux and Windows; Experience developing parallel C++ applications using Open MPI; Some experience with embedded Linux development; User-interface design experience using QT; Experience with Boost C++ libraries including Python; TCP/IP programming experience; Knowledge of network architectures and protocols; Experience with Git Version Control; Exposure to software project management techniques, including Agile Principles

Interests: Aviation and Aerospace Technology, History of Space Flight Technology, Cosmology, Robotics, Music Performance, Snowboarding, Scuba, Travel, Beer, Cheese, Startups