Gareth Ferneyhough

7116 Heatherwood Dr. Reno, NV 89523
(775)250-8441

gareth.ferneyhough@gmail.com
http://gferneyhough.com

Education

- **University of Nevada, Reno** — Reno, NV
  Master of Science in Computer Science and Engineering - GPA 3.4 — *Fall 2012*
  - 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: Cognitive Models of Emotional Speech and Music Perception**

- **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

- **Brain Computation Lab, University of Nevada, Reno** — Reno, NV
  Graduate Research Assistant — *Fall 2010 – Present*
  - 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 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

- **Advantage Computers** — Reno, NV
  Computer Technician — *June 2009 – December 2010*
  - Repaired, built, and deployed computers and networks for home and business customers
  - Initiated and maintained professional business relationships with several clients
  - Developed excellent laptop repair and soldering skills

- **Reno Orthopaedic Clinic** — Reno, NV
  Computer Technician — *September 2008 – June 2010*
  - Provided IT support to medium-sized health clinic (150 - 200 employees)
  - Maintained Windows workstations, network infrastructure, and phone system
  - Developed familiarity with Microsoft Server 2008, including Active Directory and Group Policy Management
  - Installed and configured a point of sale system for the company's new cafe
  - Wrote several SQL scripts to automate cafe billing

Skills

Languages: C/C++, Python, CUDA, VHDL, Matlab, LaTeX

Software: Visual Studio 2010, GCC, QT, Git, Ogre 3D Graphics Engine, Microsoft Office

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; TCP/IP programming experience; Knowledge of network architectures and protocols; Experience with Git Version Control; Exposure to software project management techniques, including Agile Principles