

Gareth Ferneyhough

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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
 - Became proficient 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
 - Became familiar 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, L^AT_EX

Computer and OS: Proficient 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; Git Version Control

Interests: Aviation and Aerospace Technology, History of Space Flight Technology, Cosmology, French Horn Performance, Snowboarding, Scuba, Travel