Jessica Smith | Computer Scientist

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Education

University of Nevada, Reno **Current GPA: 4.0**
MS Computer Science and Engineering *2014–May 2016(Expected)*

University of Nevada, Reno **Cumulative GPA: 3.4**
BS Computer Science and Engineering *2010–2014*

Skills

Comfortable

- C/C++
- Python
- CUDA
- OpenCV
- SQL
- Git

Familiar

- HTML/CSS
- LaTeX
- OpenGL
- Robot Operating System (ROS)

Work Experience

Industry

Flight Research Aerospace, Inc. **Reno, NV**
Part-Time Firmware Engineer *Dec. 2015– Summer 2016*
Implement middleware layer between local hardware and NASA's Distributed Airspace Simulator. Assist in building and implementing the local simulation hardware and software.

Bally Technologies **Reno, NV**
QA Intern/Development Intern/Firmware Engineer I *2012–2014*
QA Intern: Assist in the testing of games and systems. Development Intern/Firmware Engineer: Develop and maintain code for slot machines, build systems, and train new hires.

University

University of Nevada, Reno
Research Assistant *2015–2016*
Develop a comprehensive forest fire simulator that will work in conjunction with the terrain models used in the Virtual Watershed Project. Implement varying models for fire spread and create a comprehensive fire simulation system.

National Science Foundation
NSF GK-12 E-Fellow *2014–2015*
Work 10-15 hours a week in a high school classroom to bring STEM topics into 9-12 grade curriculum. Develop lesson plans to teach inquiry-based learning and critical thinking. Apply for grant funding for classroom labs/projects. Participate in field trips to remote sites.

- $2217.55 in funding awarded for classroom projects;

Relevant Experience

Sample Return Robot
University of Nevada, Reno *2013–2014*
Develop a robotic system that would search for and retrieve yellow tennis balls from a known hallway environment as a part of UNR's Senior Project. Design navigation system to localize within environment and navigate to home base with discovered tennis ball.

Temporary Lecturer and Recitation Leader
University of Nevada, Reno *2013–2016*
Cover lectures in theoretical computer science courses for professors when they are unavailable. Courses: Automata and Discrete Mathematics.

Master Thesis

Title: *Forest Fire Simulation on the GPU*

Advisor: Dr. Frederick Harris Jr.

Description: Forest fire simulation requires a large amount of data processing to operate. Current forest fires do not operate in real-time, making them less useful for real-world fire fighting situations. The goal of this work is to implement a full-scale forest fire simulator that operates in a near real time scale. The propagation method for this simulator is processed using the high performance parallel programming language CUDA and the rest of the simulator is written in C++.