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University of Nevada
Reno, NV

Computer Science
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**NASA Academy Research Project:
Linking Pattern to Process Using
Remotely Sensed Imagery of Vegetation
Canopies**

Principal Investigator: Dr. Jennifer Dungan



Education and Experience:

I have always had a love for computers, and programming them to do anything I want them to do. This passion has led to my education at the University of Nevada, Reno (UNR). I am currently a first year Master's student in the Computer Science department. UNR has enabled me to expand my love for computing, robotics, education, and space.

NASA has always been a sublime figure of my childhood dreams and is now a practical reality of my future work. Many of my recent experiences and educational opportunities have been centered on NASA endeavors.

This year I have had the pleasure of coordinating NASA's national FIRST high school robotics competition for the Reno area high schools. Being able to help mentor students and aid in the design and manufacturing of their robots has been an amazing experience. <http://www.usfirst.org>.

Additionally, I have expanded UNR's division of the NASA SENSORS project, which encompasses the use of LEGO to expand education in the Reno area. Our group has been heavily involved in using LEGO robotics to teach science and engineering to Reno students. As well, I have helped construct the SENSORS website in which users can log in and control LEGO robots from over the internet. <http://sensors.me.unr.edu>.

I have also been on two major internships. The most recent has been to NASA Ames where a team of students and I were able to build a mechanically accurate, one third scale model of the NASA K-9 Mars Rover out of LEGO bricks. The K-9 model has since been used in education and has been incorporated into UNR's SENSORS project. My other internship was to Ford Motor Company's Research Laboratory in Dearborn, Michigan. There I helped research and develop a stereovision system that was to be placed in vehicles, allowing vehicles to see, classify, range, and avoid accidents with other vehicles.

Extra-curricular Activities:

Living in the Reno-Tahoe area for the last seven years has fuelled my passion of snowboarding and scuba diving. During the winter seasons I can be found with friends carving down the side of a snow-covered mountain.

Although, when I am not snowboarding, my love of engineering folds over into my everyday life. I spend a lot of my time working on computers, developing websites, programming distributed applications, and creating 3D games.

This last summer I was involved in helping teach a kids camp, called Kids-University, at UNR. The camp consisted of teaching junior high school aged students to use LEGO robotics to edify their understanding of engineering, computing, and mathematics.

At the beginning of this year I co-founded a robotic sensor company, named LM SENSORS. Our primary target has been the construction of custom LEGO robotics sensors that are being sold to universities to further engineering labs.
<http://www.lmsensors.com>.