



NSF EPSCoR

NEVADA RESEARCH DATA CENTER [NRDC] JOINS DATAONE

DataONE, an organization that enables universal access to data and facilitates researchers in fulfilling their need for data management, recently welcomed the Nevada Research Data Center (NRDC) to its federation. The NRDC, which is part of the NSF EPSCoR Track 1 award studying the effects of solar energy generation on water resources, is operated out of the University of Nevada, Reno and currently sends updates from the NevCAN project sites located throughout rural Nevada. The partnership will make the data from the NRDC available to more researchers through the DataONE network.



DR. ERICK BANDALA JOINS THE SOLAR NEXUS PROJECT

The Solar Nexus project welcomes a new hire which builds human infrastructure through NSF EPSCoR for Nevada. Dr. Erick Bandala was recently named the assistant research professor for advanced water treatment technologies at Desert Research Institute in Las Vegas. Dr. Bandala brings 16 years of experience in the use of non-conventional energy sources, specifically solar energy, for driving advanced oxidation processes for water treatment, water disinfection and site restoration. His research focuses on the development of novel technologies for water and wastewater treatment based on nano-materials. Bandala has authored more than 100 publications and brings a wealth of knowledge and expertise in his field to the project.



UNR UNDERGRADUATE PUBLISHED AS A RESULT OF UROP PARTICIPATION



Aline Resende, a junior studying chemical engineering at University of Nevada, Reno, has come a long way from her humble beginnings growing up in a small city just outside Brazil. Through Science without Borders, a program which seeks to improve science, technology and innovation in Brazil, Resende earned the opportunity to study renewable energy in the United States. In the summer of 2015, Resende participated in the Undergraduate Research Opportunity Program (UROP).

As a result of participating in the UROP program, Resende was an author on a journal article entitled, "[A one-pot strategy for coupling chalcogenide nanocrystals with 1D oxides for solar-driven processes](#)" which was published and featured on the cover of the Journal of Materials Chemistry. The article highlighted the findings from Resende's summer research project (Mentor: Dr. Ravi Subramanian) which focused on investigating and creating effective and efficient methods of

producing materials to absorb sunlight. Being published while still an undergraduate is something to be quite proud of. Additionally, Resende was recognized as the Outstanding International Undergraduate Student of 2015 by the Office for International Students and Scholars at UNR.

"I would like to thank the NSF EPSCoR for the opportunity of being a scholar during the summer of 2015. I am also very grateful for being involved in such an important and enlightening group at the SOLAR (Synthesis and Optimization of materials for Light Activated Reactions) laboratory," added Resende.

"The most gratifying part about being a Summer 2015 UROP scholar was the opportunity to do relevant academic research during my junior year, considering that few people have the opportunity to do it as an undergraduate student," said Resende. "I learned how to do research, how to define a strategy to solve problems, and how to find and evaluate information."

The UROP program not only provides a unique opportunity to undergraduate students to participate in research, it is designed to encourage students to continue their education and ultimately graduate and work in STEM-driven industries. To learn more about the UROP program visit <http://nvsolarnexus.org/nevada-undergraduate-research-opportunity-program-urop/>.

NASA EPSCoR

SUMMER 2015 NASA INTERN ANSWERS Q & A ABOUT PROGRAM



The NASA Summer internship program offers students like **Omar Navarro Lieja**, UNLV computer science graduate student, a once-in-a-lifetime opportunity to study and participate in research projects alongside some of the best scientists in the world with the assistance of NV NASA EPSCoR funding. Leija spent the Summer of 2015 interning at NASA's first flight center, Goddard Space and Flight center in Greenbelt, Maryland. Leija talked about his experience in a recent Q&A, shared below:

Q: If someone asked you to give them an elevator pitch on your NASA internship project in three sentences, what would you say?

A: We have dozens of satellites taking hundreds of pictures of the earth every single day. To accurately measure changes in geology, urban growth, and the environment, we must be able to automatically align these images with other images of the same region. In my project we develop and program better computer algorithms to automatically align satellite images.

Q: What did you find most rewarding/gratifying about participating in your NASA internship?

A: The most rewarding part was getting to work somewhere where I knew the people, scientists, and engineers were directly impacting the advancement of science and space exploration. Everyone I talked to was working on a super cool or interesting project in space exploration, cosmology, physics, weather or engineering. All the interns were extremely bright and passionate so it was a very inspiring and motivational environment to be in.

Q: How has your NASA internship prepared you for your future career or academics?

A: I was alone on my project so the task of programming was entirely up to me. This has the advantage that I got to design and implement an entire C library from scratch; rarely as a programmer do you get to make something from scratch exactly how you design it. The experience I gained as

a programmer delving into such a challenging project like this was invaluable.

Q: What impact did participation in the internship have on your research interests?

A: Thanks to my internship I realized that my passion was indeed research and I want to pursue a career as a researcher in computer science. I now have a new interest: image processing and feature extraction. I hope to continue research in this field and other applied fields in computer science.

Q: What would you tell others who are thinking about applying for a NASA internship?

A: Originally, I was hesitant to apply, I didn't think I could get an internship at NASA. So the only thing I can say is go for it! It is definitely worthwhile and I am so glad and thankful because the experience is something I will never forget.

NASA SPACE GRANT CONSORTIUM CONGRATULATIONS NV SPACE GRANT 2015-2016 AWARD RECIPIENTS

The Nevada Space Grant Consortium supports the growth of STEM education and research projects by awarding scholarships, fellowships and funding faculty research projects.

The Research in Science & Engineering and Hands on Projects (RISE & HOP) Scholarship Opportunity provides STEM students with \$5,000 in scholarship support for the 2015-2016 academic year. *Nine students from across the state were awarded scholarships this year.*



[Scholarship Recipients](#)

The Fellowship program provides Nevada graduate level STEM students with up to \$21,000 per academic year in support. *This year 18 graduate students received funding.*



[Fellowship Recipients](#)

The Funded Faculty Projects program focuses on four specific areas in which faculty are then awarded funding: Curriculum Development, Hands on Training, Informal Education and Pre College. *Five faculty members were awarded funding in the 2015-2016 academic year.*



[Funded Faculty Projects](#)

