



## **POSTDOCTORAL RESEARCH FELLOW - Consortium for Nuclear Security Technologies (CONNECT)**

The overarching goal of the Consortium for Nuclear Security Technologies (CONNECT) is to educate and train the best next-generation professionals with strong backgrounds in nuclear science, fissionable fuels fabrication and processing, nuclear materials characterization, nuclear forensic signatures, nuclear technology, and data and visual analytics, each collaboratively brought to bear on expanding the innovation envelope of nuclear security.

A multi-disciplinary team at the University of Texas at San Antonio is seeking a highly talented and motivated postdoctoral fellow skilled in machine learning for a multi-year, NNSA-funded position. The collaborative project involves UTSA Departments of Engineering (ECE and ME), Computer Science, and Physics, as well as external partnerships with the University of Las Vegas Nevada, St. Mary's University, Argonne National Labs, and Los Alamos National Labs.

### Essential Duties

The postdoctoral fellow will be engaged in collaborative efforts between all departments. His/her main duties include:

- Perform research in the area of machine learning for nuclear security. Research will focus on algorithms for analyzing data pertained to nuclear security problems.
- Mentoring undergraduate and graduate students in their research projects
- Accomplish research goals in collaboration with the College of Engineering and College of Science researchers.
- Participate in CONNECT activities and present results in DOE meetings and national conferences.
- Publish papers in peer-review journals.
- Perform other duties as assigned.

### Qualifications

The ideal candidate should have a demonstrative background in machine learning and deep learning, include signal processing and pattern recognition. Strong programming skills in Python and machine learning libraries is required. Candidates must be able to work well on a team. The position is open to US persons (US citizens or permanent residents).

### Desired Qualifications

Desired, but not required, is knowledge of basic nuclear engineering principles.

### Security Clearance

None required.

### Application

To apply candidates should submit the following via email to Prof. Alamaniotis ([miltos.alamaniotis@utsa.edu](mailto:miltos.alamaniotis@utsa.edu)), Milwater ([harry.milwater@utsa.edu](mailto:harry.milwater@utsa.edu)) and Prof. Fernandez ([amanda.fernandez@utsa.edu](mailto:amanda.fernandez@utsa.edu)):

- CV
- One-page research statement
- Contact information for 3 references

Reviewing of applications will start on 10/15/2019 and will continue until the position is filled. Priority will be given to applicants applied before the . Applicants must have completed their Ph.D. prior to 10/1/2019.

Applicants who are selected for interviews must be able to show proof that they will be eligible and qualified to work in the United States by the time of hire. The University of Texas at San Antonio is an Affirmative Action/Equal Opportunity Employer and it is committed to diversity in its faculty and its educational programs. The College of Engineering and Department of Mechanical Engineering at UTSA value equality, and strongly encourages women, minorities, veterans, and individuals with disabilities to apply.

More information about the participating research faculty may be found at:

Miltos Alamaniotis : <http://engineering.utsa.edu/malamaniotis/>

Amanda Fernandez : <https://cs.utsa.edu/~fernandez/vail.html>

Harry Milwater: <http://engineering.utsa.edu/mechanical/team/harry-r-milwater-jr-ph-d/>

Elizabeth Sooby Wood : <https://www.utsa.edu/physics/faculty/ElizabethSoobyWood.html>

Kelly Nash : <https://sites.google.com/site/professorkellylnash/>

### About UTSA

The University of Texas at San Antonio (UTSA) is a public research university in San Antonio, Texas. With nearly 38,400 students, it is the largest university in San Antonio and the eighth-largest in the state of Texas. It includes three campuses across the San Antonio metropolitan area and offers 67 bachelor's, 69 master's, and 24 doctoral degree programs. UTSA is a member of the Oak Ridge Associated Universities, a consortium of the nation's major doctorate-level universities dedicated to collaboration and scientific advancement. It is an institutional member of the Hispanic Association of Colleges and Universities, recognizing its influence and role as a [Hispanic-serving institution](#). UTSA is also a member of the [American Association of State Colleges and Universities](#), an organization of public institutions that seek to both offer educational excellence and opportunities to historically under-served populations.