Professors Charles Nicholson and Talayeh Razzaghi of the University of Oklahoma (OU) School of Industrial Engineering seek to hire a postdoctoral research associate to help establish the Joint UNSA/OU Center for Monitoring and Control of Public Health (CMCPH). Establishing CMCPH is the ultimate objective of a substantial collaborative interdisciplinary effort between OU and the Universidad Nacional de San Agustín (UNSA) in Arequipa, Peru, that will develop an electronic syndromic surveillance and decision-support system to help mitigate the spread of dangerous diseases.

Candidates must have expertise in optimization, machine learning, data science and analytics, or related areas, preferably with experience in public health systems and/or infectious disease modeling. This position will be located at the University of Oklahoma in Norman, OK, USA. The research associate will work with Prof. Nicholson and Razzaghi and other collaborators at OU in the School of Computer Science, the School of Electrical and Computer Engineering, and the National Institute for Risk & Resilience as well as with personnel at UNSA. We seek candidates whose research, education, and/or service has prepared them to be integral contributors to the advancement of our inclusive and diverse communities.

We join OU's commitment to achieving a diverse, equitable, and inclusive university community by embracing each person's unique contributions, background, and perspectives. The University recognizes that fostering an inclusive environment for all, with particular attention to the needs of historically marginalized populations, is vital to the pursuit of excellence in all aspects of our institutional mission. This enhances the OU experience for all students, faculty, and staff, and for the communities that we engage. Thus, we are seeking candidates who contribute to fostering an inclusive culture in all aspects of their professional responsibilities.

The University of Oklahoma (OU) is a Carnegie-R1 comprehensive public research university known for excellence in teaching, research, and community engagement, serving the educational, cultural, economic, and healthcare needs of the state, region, and nation from three campuses: Norman, Health Sciences Center in Oklahoma City, and the Schusterman Center in Tulsa. OU enrolls over 30,000 students and has more than 2,700 full-time faculty members in 21 colleges. In Fall 2019, approximately 23% of OU's freshmen were first-generation students, 33% of all students belonged to a minoritized race/ethnicity, and 6% were international.

Norman is a vibrant university town of around 113,000 inhabitants with a growing entertainment and art scene. With outstanding schools, amenities, and a low cost of living, Norman is a perennial contender on "best place to live" rankings. Visit www.ou.edu/flipbook and soonerway.ou.edu for more information. Within an easy commute, Oklahoma City features a dynamic economy and outstanding cultural venues adding to the region's growing appeal.

Qualifications

Required Education:

- Ph.D. in Industrial and Systems Engineering, Computer Science, Machine Learning, Data Science, or a closely related discipline. ABD applications are accepted, but doctoral degree must be granted before hire date.

Required Skills:

- Experience with large datasets.
- Experience applying machine learning, optimization models, or advanced statistical technique to a real-world dataset.
- Demonstrated curiosity, creativity, and enthusiasm to learn new skills.
- Experience pursuing research, both independently and as part of a research team.
- Experience with high-level programming languages (e.g., Python, R, Gurobi, MATLAB, Julia).

Preferences:

- Experience with medical and/or public-health datasets.
- Experience with data collection, visualization, decision support.
- Ability to communicate using Spanish.
- Knowledge of Peru, including politics, culture, and/or society.
- Prior knowledge of a broad range of machine-learning topics, as demonstrated by classes taken and/or research performed.
- Prior experience collaborating across disciplines.
- Familiarity with Unix (e.g., Linux or OSX Terminal) and LaTeX are preferred.

Application Details

In your cover letter, please address all of the required and preferred qualifications. A complete application will include a cover letter, resume or CV, graduate transcripts, and three professional references (with full mailing and e-mail addresses and telephone numbers). References of finalist candidates will be contacted for letters of recommendation. Visa sponsorship for excellent candidates may be considered.

This position is for one year, with the option to renew up to two years based on performance. Success will be measured by the quality of deliverables (code, papers, presentations) as judged by mentors

Please send an email with the subject "Prospective Postdoc Fellow" to cnicholson@ou.edu, including your application materials.