Postdoctoral Researcher positions at ILS – SUNY Albany

The Institute for Informatics Logics and Security Studies at the University at Albany is looking for several postdoctoral researchers to join two projects starting in the fall of 2018.

The *Personalized AutoNomous Agents Countering Social Engineering Attacks (PANACEA) Project*. The PANACEA Project is a joint effort of communication and computer science faculty at the University at Albany, SUNY, as well as researchers at other institutions. The project aims to design, develop, and evaluate an automated system that will protect online users against current and future forms of social engineering attacks. The system will serve as an intermediary between attackers (human, automated, hybrid, coordinated) and the potential victims they target by addressing and eliminating human vulnerabilities in current cyber defense capabilities. The objectives of the project include detection and classification of social engineering attacks as well as active defenses, including engaging and identifying of the attackers.

For the PANACEA project, we seek a postdoctoral researcher to join our interdisciplinary team. The candidate must have a Ph.D. in Computer Science from an accredited college or university that was granted within the last 3 years, and evidence of advanced scholarly research in a relevant field. The candidates are expected to have the following skills: in-depth knowledge of current issues and methods in cybersecurity, natural language processing, socio-behavioral computing, human-computer dialogue, statistical methods of data analysis, and machine learning. Familiarity with empirical method of data collection and model validation is preferred. Programming expertise is essential including substantial experience with Java, Python, and C++ programming environment, as well as with Windows, Linux and Unix platforms. Linguistic background and familiarity with methods of conversational analysis is a plus.

The *Computational Ethnography from Metaphors and Polarized Language (COMETH) Project*. The COMETH project is a joint effort of computer science and psychology faculty at the University at Albany. The project aims to develop and validate novel computational methodology for automatically acquiring cultural models that represent the worldviews of communities and subcultures operating within the larger society. These models will be obtained using advanced natural language processing and machine learning techniques on data from online media outlets produced by different communities. The objectives of this research include (a) capturing prevalent community attitudes (sentiment and beliefs) toward key concepts such as government, rights, economic inequality, etc.; (b) showing how these attitudes evolve over time, including in response to external influences (e.g., national or international events); and (c) explaining how this system of attitudes acts like an interpretive and defensive tool by allowing the community to reject or distort incoming information.

For the COMETH project, we seek two postdoctoral researchers: one in computer science and one in psychology. The candidates must have a Ph.D. in Computer Science or Psychology from an accredited college or university that was granted within the last 3 years, and evidence of advanced scholarly research in a relevant field. *The computer science candidates* are expected to have the following skills: in-depth knowledge of current issues and methods in natural language processing, data science, domain modeling, socio-behavioral computing, statistical methods, and machine learning. Familiarity with empirical method of data collection and model validation is preferred.
Programming expertise is essential including substantial experience with Java, Python, and C++ programming environment, as well as with Windows, Linux and Unix platforms. Linguistic background and familiarity with sentiment analysis and metaphor extraction is a plus. The psychology candidates are expected to have following skills: substantial experience with experimental design and advanced statistical methods in experimental social psychology, and knowledge of political psychology. Experience with open science and pre-registration of research protocols will be beneficial

For all postdoctoral researchers: duties include advanced research and development under the direction of the project faculty, report preparation and coordination of work of graduate student assistants. Ability to execute substantial tasks within large projects in timely fashion is essential. Candidates must also address in their applications, their ability to work with a culturally diverse population.

The postdoctoral researcher appointment review will begin immediately and will close once filled. The successful candidates will be located in the Institute for Informatics, Logics, and Security Studies at the University at Albany, SUNY. The appointment is for 40 hours a week, initially for 12 to 18 months, and potentially extendible for up to 48 months, depending on the project. Expected start dates are September 1, 2018 and December 1, 2018, pending funding approval from the Federal Government sponsor. The salary is commensurate with experience.

Interested individuals should direct inquiries and submit a cover letter, resume, and three letters of reference to:

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