Research Assistant Positions – SUNY Albany

Research Assistants – multiple projects – ILS Institute
The Institute for Informatics, Logics and Security Studies (ILS) (http://ils.albany.edu) along with the departments of Computer Science, Communication, and Psychology at the University at Albany invites applications from qualified graduate students for several anticipated Research Assistant positions starting in June 2018, September 2018, and December 2018. These are one-year and multi-year positions funded by Federal research grants.

General Description of Duties:
Undertake research in one of the following fields: information processing, natural language processing (including multilingual texts), topic modeling, cybersecurity and privacy, human-machine dialogue, conversation analysis, experimental design, capturing and analyzing experimental data, statistical data modeling, machine learning, and related areas. The exact scope of work is negotiable and will depend upon the candidate’s qualifications and the projects available. Assist senior Research Scientists and Faculty with the development, implementation and validation (involving human subjects research) of software. Work with graduate students and assist them in programming tasks. Prepare research reports and presentations for the senior personnel. All positions require ability to work well with students and faculty from a variety of disciplines, as well as practitioners from the public and private sectors.

Positions available:
1. Ph.D. position in information security, privacy, and machine learning: This research area focuses on applications of machine learning techniques in security/privacy problems such as detecting anomalous communication and conversation patterns and mining security policies. In addition to the general qualifications listed below, practical knowledge of machine learning techniques is expected. Previous research experience in security and privacy and knowledge of network protocols is a plus. The successful candidate will join the PhD program in Computer Science. Technical contact: Prof. Amir Masoumzadeh (amasoumzadeh@albany.edu)
2. Ph.D. position in human-machine dialogue. This research area includes development of realistic human-machine interaction based on sociolinguistic models of discourse. Previous research experience in natural language processing, dialogue analysis, or human-machine conversation is desired. Familiarity with experimental research methods, data collection and statistical analysis is a plus. The successful candidate will join the PhD program in Computer Science. Technical contact: Prof. Tomek Strzalkowski (tomek@albany.edu)
3. Ph.D. positions in natural language and text processing. This research area encompasses robust processing of large scale textual data sets, including topic modelling, extraction of entities and relations, sentiment analysis, automated understanding of metaphors and figurative language, advanced machine learning including statistical neural approaches. The successful candidates will join the Ph.D. program in Computer Science. Technical contact: Prof. Tomek Strzalkowski (tomek@albany.edu)
4. **PhD position in conversation analysis.** This research area includes the explication of practices of textual action formation and deception in the production of text-based communications addressed to human actors. Previous research experience in conversation analysis, textual analysis, and human-machine interaction is desired. Familiarity with conversation analytic methods for analyzing textual data is a plus. Successful candidates will be in the process of acquiring a Ph.D. in Communication. *Technical contact: Prof. Alan Zemel (azemel@albany.edu)*

5. **Ph.D. positions in experimental social psychology.** This research area involves human subjects research for the purpose of validating computational modeling of large scale textual data sets. In addition to the general qualifications listed below, substantial experience with experimental design and advanced statistical methods in experimental social psychology is required. Knowledge of political psychology and experience with open science and pre-registration of research protocols will be beneficial. Successful candidates will be in the process of acquiring a Ph.D. in Psychology. *Technical contact: Prof. Anna Newheiser (anewheiser@albany.edu)*

**General Qualifications:**
Candidates must have or be in the process of acquiring an advanced degree in Computer Science, Psychology, Communication, Computational Linguistics, or related areas, such as a Ph.D. or M.S. with basic research experience. Computer Science candidates must have excellent programming skills in Java, Python, and C++ and be willing to work on a cohesive research team, with deliverables and deadlines. Excellent grasp of algorithms and software engineering principles is required. Familiarity with Windows and Linux operating systems is preferred. Completed graduate coursework in relevant areas such as information retrieval, natural language processing, cybersecurity, and machine learning is a plus. For social science candidates, strong background in experimental design, experimental analysis, statistics, and/or rigorous interpretive methods of analysis like Conversation Analysis is expected. Willingness to work with diverse groups of people is required.

**Apply:**
Interested and qualified candidates should send resumes, including past research experience as well as recent transcripts, indicating the type of position applying for to:

Prof. Tomek Strzalkowski  
Director, ILS Institute  
tomek@albany.edu  
518-442-2608