JOB TITLE: Associate Research Engineer

Location:
    Toronto, ON
    Remote, Open
Level: Entry level (less than 2 years)

Education: Masters Degree
Type: Full-time/Regular
Years of Experience: Up to 2 years
Starting Date: ASAP

JOB DESCRIPTION

ETS Educational Testing Service Canada Inc. has an opening for an Associate Research Engineer. The Associate Research Engineer would work with a team of NLP researchers on projects that focus on the application of NLP, speech, dialogue, and multimodal processing algorithms in automated scoring capabilities for assessment and learning tasks involving constructed responses (such as essays and spoken responses). In addition to its signature automated scoring systems for speech and text assessments, the group is actively pursuing technology innovation in education and learning spaces by performing foundational research, prototyping next-generation capabilities, and collaborating with academic and industry partners. The Associate Research Engineer will collaborate with a team that comprises around 20 PhD-level research scientists, 15 research engineers, and 10 research assistants and administrative staff.

This is an excellent opportunity to be part of a world-renowned research and development team and have a significant impact on existing and next-generation NLP, speech, dialogue, and multimodal systems and their use in educational applications.

BASIC FUNCTIONS AND RESPONSIBILITIES

- Assist in the implementation of assessment components including NLP, speech processing, dialogue systems, or multimodal processing in the scope of medium- to large-scale, complex research projects, testing program areas, and external clients. Consult with research scientists in the application, modification, and documentation of such systems using established technologies and novel approaches from the research literature.

- Work effectively in a team setting and take an active role in contributing to team discussions and decisions.

- Analyze, design, modify, develop, document and implement technologies for executing medium- to large-scale, complex NLP, speech, dialogue, and multimodal research and development tasks. Identify unexpected problems in the application of NLP, speech, multimodal analytics, and dialog tools, and develop solutions.

- Consult with research supervisory staff on the development of technologies for executing medium- to large-scale, complex NLP, speech, dialogue, and multimodal research and development tasks. Contribute to the implementation and support of new NLP, speech, dialog, and multimodal methodologies to support research system development.

- Assist in the preparation of research project proposals and cost/resource estimates.

- Maintain continuing awareness of recent advances in NLP, speech processing, multimodal analytics, dialogue, machine learning, and software development methodologies.

- Implement components of technical documentation of NLP, speech, dialogue, and multimodal systems, solutions and results.

- Participate in area-wide staff training and development sessions.

EDUCATION
A Master's degree in Computer Science, NLP, Cognitive Science, Educational Technology, Human Computer-Interaction, Language Technology, Computational Linguistics, Linguistics or a closely related field is required.

EXPERIENCE
A strong programming background (preferably in Python), and facility with computational algorithms are essential. Experience in statistics and using machine learning toolkits (such as scikit-learn and Tensorflow) are highly desirable. Experience with text, speech, dialog, and multimodal processing tools/frameworks (such as NLTK, Praat, OpenSMILE and Kaldi) is desirable.

OTHER REQUIREMENTS
- Knowledge of UNIX and Windows computing environments.
- Familiarity with UNIX tools, scripting languages, and tools for managing software projects.
- Familiarity with algorithms, methods and data structures in common use in the processing of speech, language, dialogue, and multimodal data.
- Excellent verbal and written communication.

Please send your resume and cover letter to careers@etscanada.ca. For more information, please visit www.etscanada.ca.

ETS Educational Testing Service Canada Inc. is a drug-free workplace and an Equal Opportunity and Affirmative Action Employer of Women and Minorities, protected Veterans and Individuals with Disabilities.