Post-doctoral Researcher in Data Sciences for Educational Environments

The Open Ended Learning Environments research group at the Institute for Software Integrated Systems (ISIS) and the Department of Electrical Engineering and Computer Science at Vanderbilt University has an opening for a post-doctoral researcher who will be supported by grants from the National Science Foundation and the Army Research Labs. In particular, this position will involve research in data analytics and data mining methods applied to performance and behavioral data generated from a number of Open Ended Learning Environments (OELEs) that include the: (1) Betty’s Brain, (2) SimSelf, (3) UrbanSim and GIFT, (4) CTSiM, and (5) C²STEM learning environments (for details see www.teachableagents.org). Some of these projects involve collaborations with faculty at the Peabody School of Education at Vanderbilt. In addition, the group collaborates with the Vanderbilt Institute for Digital Learning in analyzing MOOC data generated from a number of Coursera MOOC offerings by Vanderbilt faculty.

Applicants are expected to have the following qualifications:

- Ph.D. degree in computer science or a related field
- Expertise in data analytics and data mining, with some experience in analyzing data generated from user interaction data in computer-based environments.
- Proficiency in Java programming with experience in software design and development.
- Some knowledge of educational technology, virtual agents, user interfaces, and artificial intelligence techniques.

The post-doctoral researcher will work closely with the faculty mentor (Gautam Biswas, Professor of Computer Science and Engineering), a senior software engineer, and graduate students in the OELE lab on large-scale, collaborative software projects that involve the design and development of learning environments. However, the researcher’s primary focus will be on data analytics and data mining research, designing NoSQL repositories for OELE-generated data, and developing tools in distributed analysis frameworks, such as Spark, for big data analysis. In addition to Java programming experience, proficiency in R, Python, and Javascript will be helpful.

The initial post-doctoral fellowship will be for a year, with the possibility of extensions to a second and third year based on performance. Superior performance in generating publications and support for grant writing can lead to a promotion to a Research Scientist position at ISIS.

The post-doctoral fellowship includes an initial salary of at least $70,000 per year plus health insurance coverage and support for professional travel. Please send a letter of interest, curriculum vitae, and at most two publications (or manuscripts in progress), by email to Gautam Biswas at gautam.biswas@vanderbilt.edu. Applications will be considered until the position is filled.

World-class, interdisciplinary research with global impact.
reviewed immediately, with a potential start date of September 1, 2015 for the selected candidate.

For additional information please visit our website: www.isis.vanderbilt.edu.

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