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Statistical Bioinformatics Graduate Students

Scientific breakthroughs from genome-sequencing projects brought the realization that reliable interpretation of the resulting information makes unprecedented demands for contemporaneous advances in computation and mathematical modeling. As the complexity of genomic data sets drives innovative statistics research, the new Statistical Machine Learning in Functional Genomics (Statomics) Lab of the Ottawa Institute of Systems Biology seeks MSc and PhD students who will develop and apply novel methodology and algorithms to solve current problems in analyzing gene-expression, proteomics, metabolomics, SNP, ChIP-chip, and/or phenotypic data. The lab is presently targeting the inference of regulatory networks from multiple sources of information and improvements in the repeatability of microarray results and will attack similar statistics and machine learning challenges of importance to functional genomics.

The OISB provides a highly collaborative research environment with ample opportunities to interact with leading experimental and computational biologists; www.oisb.ca gives details. In addition, each student's background will complement that of any students and any postdoctoral researchers to be recruited to the Statomics Lab from the Bayesian and machine learning communities, creating interdisciplinary synergism for making unique contributions to science. Students will have top-priority access to high-performance computing that enables parallelization of computationally complex methods.

Intellectual curiosity and high mathematical aptitude are essential, as is the ability to quickly code and debug computer programs. Canadian citizenship or permanent resident status, strong initiative, good communication skills, and a degree in bioinformatics, computer science, mathematics, physics, statistics, any field of engineering, or an equally quantitative field are also absolutely necessary. The following qualities are desirable but not required: coursework in computer science, numerical methods, numerical analysis, software engineering, statistics, and/or biology; familiarly with BUGS, R, S-PLUS, C, Fortran, and/or LaTeX; experience with UNIX or Linux.

To apply, send a PDF CV that has contact information of two references to dbickel0@uottawa.ca (without the zero) with "statistical bioinformatics graduate student" in the Subject line of the message. Only those applicants selected for further consideration will receive a response.