Other Positions

**Postdoctoral Position**  
*(in Set Theory)*

**Job Description:** This is a one-year postdoctoral position in set theory. The NUS logic group consists of 4 faculty members and a varying number of postdoctoral fellows working in set theory and recursion theory. The research in set theory focuses on cardinal invariants of the continuum, iterated forcing, forcing axioms, partition calculus, and other combinatorial set theory.

**Prerequisites:** A PhD in mathematics. The candidate should have carried out some original work in an area that intersects substantially with set theory. It is desirable if the candidate's thesis is on a topic related to the research interests of the NUS logic group. The successful candidate will be expected to start in April 2015 or a mutually acceptable date.

**Compensation:** The salary is competitive and dependent on the candidate's experience.

**Job requirements:** The candidate will be expected to contribute to the research activities of the NUS logic group. In particular, the candidate should be able to help with some of the group's ongoing projects in set theory. There is no formal teaching requirement.

**Contact for application/more details:**

Please send a complete CV, including a list of publications and names and contact information of at least three references to

Dr. Dilip Raghavan  
Department of Mathematics  
National University of Singapore  
Singapore 119076  
Email: raghavan@math.nus.edu.sg or matrd@nus.edu.sg

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**Research Officer**  
*(Bioimage Informatics)*

**Click here for details**
**Research Scientist Position**  
*(Machine Learning in Bioimage Informatics)*

Research scientist position available to lead a small project team in Bioinformatics Institute, Republic of Singapore. We focus on fundamental research in computer vision and pattern recognition to build machine vision techniques for biomedical images. Our main application is image analysis and data mining on large light microscopy image data sets.

Interested candidates with credentials in the following may send email to: Hwee Kuan Lee, leehk@bii.a-star.edu.sg.

- Experienced in machine learning, including good publication records in machine learning.
- Strong skills in advanced applied mathematics.
- Strong computing skills and especially familiar with object oriented programming and the C++ programming language.
- Strong interest in gaining relevant knowledge in biology, especially in biological microscopy.

**Job Scope includes:**

- Applying machine learning, combined with image analysis, to detect special cellular patterns (phenotypes).
- Recruit and lead a small and independent group (with up to 2 additional positions).
- Assist the group leader to achieve the group’s research objectives of building intelligent computer vision methodologies to analyze cellular images.

**Contact for application/more details:**

Hwee Kuan LEE  
leehk@bii.a-star.edu.sg  
30 Biopolis Street, #07-01, Matrix, Singapore 138671  
Computer Vision and Pattern Discovery Group, Imaging Informatics Division, Bioinformatics Institute, A*Star, Republic of Singapore  
http://www.bii.a-star.edu.sg/research/iig/cvpd.php

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**Postdoctoral Position**  
*(Bioinformatics Institute, in the Evolution of Protein Structure and Function group)*

**Prerequisites:** doctoral degree in applied mathematics, computer science, computational physics or related field; strong interest in molecular biology, and demonstrable ability to develop strongly argumented algorithms and implement them in the form of a well documented and stable code; ability to communicate the results, both in the form of scientific papers and applications accessible to experimental biologists.

**Desirable skills:** ability to understand college level physics, work in Linux environment, C/C++, perl or python scripting; multitasking on smaller side projects as the occasion arises. Immediate project: 3D matching of macromolecular structures on an adjustable level of resolution, and its application to problems related to determination protein structure, dynamics, and physiological role. The ideal candidate should find the pursuit of answers to scientific questions personally fulfilling, and have the ambition of becoming an independent investigator and member of scientific community on their own.

Inquiries to: ivanam@bii.a-star.edu.sg
Postdoctoral Position
(Computer Vision and Pattern Discovery group, Bioinformatics Institute)

Our group focuses on fundamental research in computer vision and pattern recognition to build machine vision techniques for biomedical images. Our main application is image analysis and data mining on large biomedical image data sets.

Requirements:
1. Experience in computer vision, machine learning or theoretical physics research
2. Strong mathematical skills with training in analysis, linear algebra, probability theory etc. Candidates familiar with advanced mathematics such as optimal control, differential geometry and Clifford algebra will be highly regarded
3. Strong computing skills and especially familiar with object oriented and generic programming paradigms, e.g. familiarity with the use of expression templates will be advantageous

Contact for application/more details:
Hwee Kuan LEE
leehk@bii.a-star.edu.sg
30 Biopolis Street, #07-01, Matrix, Singapore 138671
Computer Vision and Pattern Discovery Group, Imaging Informatics Division, Bioinformatics Institute, A*Star, Republic of Singapore

Postdoctoral Fellow (2 positions)/ PhD Studentship (1 position)
(Research Project: Analysis and Simulation of Quantized Vortices in Superfluidity and Superconductivity)

The aim of the project is to combine numerical, asymptotic and analytical methods to understand quantized vortex stability and interaction patterns in superfluidity and superconductivity as well as emerging applications in Bose-Einstein condensation, liquid Helium, superconductors, nonlinear optics, etc. Sample publications reflecting our group’s diverse interests can be found at: http://www.math.nus.edu.sg/~bao/

Requirements for Postdoctoral Fellow:
Candidates with high-quality training and a PhD degree in computational and/or applied mathematics are invited to apply. The successful applicant will join the group in June/July 2009 or a mutually acceptable date.

The contract is initially for two years, renewable for the third year if mutually agreed upon. The salary will be competitive. The successful applicant will have access to high-performance computational facilities on NUS campus.

Requirements for PhD Studentship:
Candidates with a BSc degree in mathematics are invited to apply. It is initially for three years, renewable for another two years.

Contact for application/more details:
Please send a full CV, including a publication list and names and contact information of at least two references, to

Dr Weizhu BAO
Department of Mathematics
National University of Singapore
Singapore 117543
Email: bao@math.nus.edu.sg