

Research Fellow Position at the National University of Singapore

Research fellow position in the area of Science of Prescriptive Analytics (SPA) is available at the Institute of Operations Research and Analytics (IORA), National University of Singapore. The position is available immediately.

The candidate will be knowledgeable in the state of the art in Analytics / Operations Research and obsessed with pushing the frontier of theory and application of SPA. They will be skilled at bridging theoretical ideas to practice by drawing inspiration from diverse areas of study such as large-scale conic optimization, SDP, SOCP, ML and apply the techniques to solving industry scale problems. They will work closely with leading experts in this field and demonstrate excellent verbal and written communication skills.

The candidate will contribute towards the institute goals in one or more of the following areas:

- Developing new solvers/algorithms, primarily on large scale conic optimization, SDP, SOCP, etc.
- Developing a platform for rapid deployment of models, algebraic modelling of robust stochastic optimization problems, Online optimization, etc.
- Developing applications dealing with time dependent routing & inventory management under uncertainty for transportation / logistics.
- Implementing models on capacity / resource allocation under uncertainty and dealing with multiple KPIs.
- Integrating machine learning and convex optimization for planning and clustering problems.

The candidate will have the opportunity to collaborate with a world class research team led by PIs from Business, Math & Engineering faculties and other industry partners.

Qualifications

The candidate should have a PhD in Operations Research, Industrial Engineering, Computer Science, Statistics, Mathematics, or in other relevant science and engineering disciplines. They should have outstanding data analytics, mathematical, and computer modelling skills and also be an efficient programmer with an understanding of handling large data sets. The candidate shall possess good knowledge on a few or more of the following:

- Optimisation and Heuristics
- Algorithm Development
- Programming in Matlab / Python / R / MySQL
- Multi-threaded / Parallel computing.
- Applied Machine Learning

Application

Job applications and inquiries should be sent to iora@nus.edu.sg . Applicants should include a CV and indicate desired start date in the email message. The email message can also include any information required to understand how the applicant's background relates to the qualification requirements listed in this announcement.

About National University of Singapore (NUS)

Founded in 1905 as a modest medical school with 23 students, NUS is today widely known for our pioneering education and innovative research which have made an impact on the community in Singapore and beyond. We offer a global and Asian approach to education, research and entrepreneurship. The University is especially renowned for our research in engineering, operations research, science and technology, biomedical sciences, and the humanities and social sciences.

About the Institute of Operations Research and Analytics (IORA)

Established in November 2016, IORA conducts research on the optimization, analysis and management of service systems, including model formulation, algorithm design, analysis of service strategies, and software development.

IORA is working with local companies to optimize resource allocation and utilization, as well as developing a cutting-edge solver to tackle large-scale complex models that are often encountered in the field of data analytics.

Members of IORA are part of the research group SPIRE (Service Productivity and Innovation Research) that had recently won a multi-million-dollar research grant from the Social Science Research Council. The inter-disciplinary project will advance new scientific knowledge and develop cost-effective and scalable strategies to raise productivity across multiple industries, including supermarkets, logistics, car-sharing services, and healthcare.