

The Bioinformatics Institute (BII) is an institute of the Agency for Science, Technology and Research (A\*STAR). BII was set up in July 2001 as part of the national initiative to foster and advance biomedical research and human capital for a vibrant knowledge-based Singapore. With a multi-disciplinary focus and collaborative outlook, BII recognises the need for depth and breadth in all its activities for building a thriving world-class biomedical research, graduate training and development hub in Singapore. In addition, BII is proactively involved in building a national resource centre in bioinformatics to meet the evolving needs of the scientific community in Singapore.

For more information on A\*STAR and BII, please visit: [www.a-star.edu.sg](http://www.a-star.edu.sg) and [www.bii.a-star.edu.sg](http://www.bii.a-star.edu.sg) respectively.

We are hiring PhD and non-PhD degree holders in the Computer Vision and Pattern Discovery Group of the Bioinformatics Institute (<https://web.bii.a-star.edu.sg/~leehk/>). We are a multi-disciplinary research group working on the analysis of bio-images, in particular but not restricted to, images and videos of, patient biopsy samples, OCT images and MRI/CT scans, live and fixed cells. We also work on time series, non-image data sets. Our work uses deep learning methodologies and computer vision for the improvement of healthcare.

In addition, to healthcare we are engaged in a wide area of AI applications, such as FinTech, Semiconductor chip design, agriculture, insurance etc.

\*\* no prior experience in deep learning and data science is required, we will provide training to individuals aspiring to go into deep learning and artificial intelligence.

### **Position #1 : Research position for Deep Learning in Healthcare (PhD, non-PhD)**

#### Responsibilities

- (1) Develop AI methodologies to perform computer assisted diagnostics for healthcare, images to be analysed includes histology slides as well as radiology images.
- (2) Work closely with clinicians and/or biologist to contribute to better assessment of medical risks.

### **Position #2 : Research position for Deep Learning for cell assays (PhD, non-PhD)**

#### Responsibilities

- (1) Develop AI methodologies to perform computer assisted design for analyzing multiplexed cellular images.

(2) Work closely with our partners to contribute to faster, cheaper product development cycle.

**Position #3 : Research position for statistical analysis on cell assays (PhD, non-PhD)**

**Responsibilities**

(1) Develop and apply statistical methodologies to perform analysis on population of cells from video images. Deep Learning will be use to extract feature distributions for analysis.

(2) Work closely with our partners to contribute to faster, cheaper product development cycle.

**Requirements**

\*\* no prior experience in deep learning and data science is required, we will provide training to individuals aspiring to go into deep learning and artificial intelligence.

(a) Ph.D or Basic Degree and a strong background in machine learning.

(b) Experience and versatile in programming especially in python.

(c) Familiar with applied mathematics which includes but not limited to knowledge in optimization, statistics, deep learning and machine learning formalism.

(d) Prior domain knowledge is not required but candidate must be willing to learn domain knowledge

(e) Good communication skills and a team player.

We welcome interested applicants to email a full CV and a one-page letter of intent summarizing past experience and strengths as well as contact details of two referees to [leehk@bii.a-star.edu.sg](mailto:leehk@bii.a-star.edu.sg). For more information, please visit: <http://web.bii.a-star.edu.sg/~leehk/>