Postdoctoral Fellow – Deep Learning for 3D Medical Imaging – National University of Singapore

Job description: We are looking for a bright, dynamic, and highly motivated individual to perform state-of-the-art research in artificial intelligence with applications to ophthalmology.

For this project the successful candidate will develop and apply deep learning algorithms to 3D images of the eye (captured with optical coherence tomography or OCT). We aim to develop tools:

1) To improve the diagnosis/prognosis of glaucoma – a major blinding disorder
2) To provide a better definition for glaucoma
3) To de-noise, enhance, and segment 3D OCT images of the eye

The candidate will develop custom convolutional neural networks, generative adversarial networks, and feature learning algorithms.

The candidate will also join our AI team at NUS (OCTAGON: http://www.bioeng.nus.edu.sg/oeil/OCTAGON.html), and will be expected to interact with engineers, computer scientists, and clinician scientists.

This is an exciting multi-centre project in collaboration with the NUS Departments of Biomedical Engineering and Statistics, the Singapore Eye Research Institute, and 15 glaucoma institutes from 10 countries across 4 continents. Note that our project also has the necessary GPU power that is required to handle 3D datasets.

Qualification: A minimum of 2-years experience with deep learning algorithms is required. Excellent programming skills in Python are required. Excellent communication and English-writing skills are also required. No background in ophthalmology is required, however, the candidate will be expected to become knowledgeable in the field of glaucoma in order to interact with clinicians. Candidates with PhDs in Computer Science, Electrical Engineering, Biomedical Engineering, Mathematics, Statistics or other related disciplines are encouraged to apply.

Starting Date: 1st of April 2018.

Duration: An initial contract of 12 month will be provided. Upon performance, we have the funds to extend this contract for a total duration of 3 years.

Salary Range: S$60k to S$85k per year.

To apply, please email a detailed CV and the names of two references to:

Dr. Michael JA Girard
Ophthalmic Engineering & Innovation Laboratory
Department of Biomedical Engineering
National University of Singapore
Email: jobs@invivobiomechanics.com
Homepage: http://www.bioeng.nus.edu.sg/oeil/