PhD studentships in Neural data analysis and Neuromorphic Computing

Contact:

Dr Michael Schmuker (<u>m.schmuker@biomachinelearning.net</u>) Dr. Volker Steuber (v.steuber@herts.ac.uk).

We translate processes and algorithms from Biology and Neuroscience to Computing. In collaboration with world-leading neuroscience labs we investigate the brain's computational strategies for processing dynamic sensory information. Further, we are a part of the Human Brain Project in which we use pioneering neuromorphic hardware technology to implement neural "algorithms" in silico.

Current projects include

- Pattern recognition on neuromorphic hardware.
- Machine learning for analysis of neuronal data.
- Information processing in olfaction, our chemical sense.
- Dynamic signal processing in electronic gas sensors.

Methods applied include supervised and unsupervised machine learning, simulations of spiking networks and neuromorphic computing, and chemical informatics. For a list of recent projects and publications please refer to the web pages of the BioMachineLearning Project (http://biomachinelearning.net).

We are looking for candidates with one or more of the following skills:

- Pattern recognition and data science
- Neuromorphic computing
- GPU computing
- Chemical informatics
- Computer engineering

Interested candidates are warmly welcome to enquire by email prior to application.

Successful candidates are eligible for a research studentship award from the University (approximately GBP 14,550 per annum bursary plus the payment of the standard UK student fees). Applicants from outside the UK or EU are eligible, but will have to pay half of the overseas fees out of their bursary.

Application forms can be obtained from Mrs Lorraine Nicholls, Research Student Administrator, STRI, University of Hertfordshire, College Lane, Hatfield, Herts, AL10 9AB, Tel: 01707 286083, l.nicholls@herts.ac.uk. The short-listing process will begin on 16. June 2017.