PhD Studentship in Deep Learning for Signal Processing and Wireless Communications

Applications are invited for a full PhD Studentship starting in April 2019 to undertake research on deep learning for signal processing and wireless communications. The successful applicant will be based in the School of Electronic Engineering and Computer Science (www.eecs.qmul.ac.uk), Queen Mary University of London, UK.

Deep learning (DL) has shown the great potentials to break the bottleneck of wireless communication systems. DL can improve the performance of each individual block in communication systems or optimize the whole transmitter/receiver, which can be based on data-driven or model-driven DL approaches. The successful applicant will focus on but not limit to the signal processing in data-driven and model-driven DL wireless communications, such as signal compression and sparse channel estimation. The proposed design will have the opportunities to be implemented over the hardware testbed in the WMC lab (http://wmc.eecs.qmul.ac.uk/). The successful applicant will also have the opportunity to collaborate with excellent external collaborators, all over the world.

Qualifications:

All applicants should have a first-class honours degree or equivalent, or a MSc Degree, in Electronic Engineering or Computer Science (or a related discipline). Applicants should have a good knowledge of English and ability to express themselves clearly in both speech and writing. The successful applicant should be highly motivated for doctoral studies, and must have demonstrated the ability to work independently, especially to perform critical analysis.

Applicants are asked to possess fundamental knowledge and skills in two or more of the following areas:

- Excellent background in communication theory and/or signal processing.
- Prior experience/education in both theory and practice of machine learning. Experience on compressive sensing will be considered as a plus.
- Hands on experience using one of the following deep learning libraries: Tensorflow, PyTorch, Theano or similar.
- Good programming skills.

This studentship is available to candidates of all nationalities. It is funded by Queen Mary University of London for 3 years, including student fees and a tax-free stipend starting at £16,777 per annum.

To apply, please follow the on-line instructions at the college website for research degree applicants (HTTP://www.qmul.ac.uk/postgraduate/research/subjects/). At the page, select ‘Electronic Engineering in the list “FIND”’ and follow the instructions on the right-hand side of the web page. Please note that instead of the ‘Research Proposal’ we request a ‘Statement of Research Interests’. Your statement (no more than 500 words) should answer two questions:

(i) Why are you interested in the topic described above?
(ii) What relevant experience do you have?

Please attach your CV, a transcript of records, and the title/s of your MSc dissertation/s.

In addition, we would also like you to send a sample of your written work. This might be a chapter of your final year dissertation, or a published conference or journal paper. More details can be found at: www.eecs.qmul.ac.uk/phd/apply.php

Applicants seeking further information or feedback on their suitability are encouraged to contact Dr. Zhijin Qin by z.qin@qmul.ac.uk with subject “PhD in Deep Learning for Signal Processing and Wireless Communications”. However, please finish the official application on the website before 4th January 2019. Interviews will start during week of 7th January 2019.