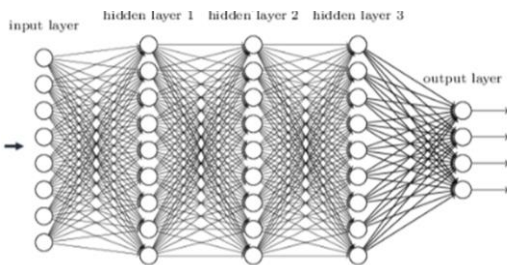# IEEE Ottawa Seminar Series on AI and Machine Learning

IEEE Ottawa PHO Chapter, EMBS Chapter, CS Chapter, and SP Chapter
Jointly with Vitesse Reskilling

Application of Deep Learning for Medical Image Analysis

Fatemeh Zabihollahy
Carleton University

Wednesday, June 26, 2019
359 Terry Fox Drive, Suite 200, Kanata, Ontario
11:30 – 13:30

Medical imaging, (e.g., computed tomography (CT), magnetic resonance imaging (MRI), positron emission tomography (PET), mammography, ultrasound, X-ray) has advanced at a rapid speed over last decades. Currently, the medical image interpretation is mostly performed by human experts, which is a tedious task and subject to high inter-operator variability. Deep learning is providing exciting solutions for medical image analysis problems. Recent advances in deep learning have helped to identify, classify, and quantify patterns in medical images. In this seminar, we introduce the principles and methods of deep learning concepts, particularly convolutional neural network (CNN). We show how CNN operates. I will describe several interesting applications of deep learning for medical image analysis, including my recent works on segmenting myocardial scar (injured) tissue in the heart, prostate tumor detection, and kidney lesion localization in 3D MRI and CT images.
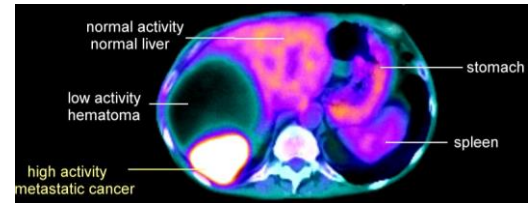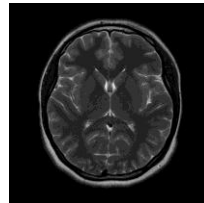
Biography

Fatemeh Zabihollahy is currently a Ph.D. candidate at Carleton University. She obtained her MASc (2016) and BASc (2001) both in Biomedical Engineering from Carleton University, Canada and Shahid Beheshti University, Iran, respectively. She worked in the medical devices industry as an R&D engineer for ten years. Her research interest is in the field of application of deep learning techniques for medical image analysis.

Event is free, but space is limited. All participants must register in advance.
Please follow the link to register
https://ieeeottawaaiml2019jun26.eventbrite.ca

For more information, please contact: Kexing Liu kexing.liu@ieee.org