DEPARTMENT of INDUSTRIAL ENGINEERING
UNIVERSITY of HOUSTON

FRIDAY SEMINAR SERIES
BROADEN HORIZONS | EXTEND MINDS

Dr. Hien Van Nguyen

Department of ECE

University of Houston

Date: Friday, March 12, 2021

Time: 1 - 1:50 pm

Zoom Meeting ID: 970 7656 5407

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META-LEARNING FOR MEDICAL IMAGE ANALYSIS

Abstract: Accenture estimated that artificial intelligence (AI) could save the healthcare industry $150 billion annually by 2026. Despite the great promise, AI models' development and deployment face a significant challenge of data heterogeneity. Specifically, AI models trained on data from one hospital will likely suffer from accuracy drops (biases) when performing on data coming from another hospital. For example, an algorithm developed at a hospital with a mostly Caucasian patient population will not achieve the same accuracy on minority patients from a local clinic. Meta-learning is a promising framework to mitigate the above-mentioned problem. In this talk, I will give a brief introduction to contemporary meta-learning algorithms, and show their applications to biomedical image analysis.

Biography: **Dr. Hien Van Nguyen** is an Assistant Professor of the Department of Electrical and Computer Engineering Department at the University of Houston. He received his B.S. degree from the National University of Singapore in 2007 and a Ph.D. degree from the University of Maryland in 2013. Dr. Nguyen has published 50 peer-reviewed papers and received 12 U.S. patents. He is passionate about inventing novel algorithms to address pressing challenges in healthcare and medical diagnosis. His research has been funded by NSF and NIH, and featured by the Computing Research Association in the Great Innovative Ideas series. Before UH, he was a senior research scientist at Uber Autonomous Driving division (Pittsburgh, PA), and a scientist at Siemens Corporate Research (Princeton, NJ). He is a senior member of the National Academy of Inventors.