Dr. Long Tran-Thanh

Bandit Theory and its Application to Security Games

Dr. Tran-Thanh will briefly discuss different models of bandit theory, which lies within the intersection of sequential decision making and online optimization. In particular, he will start with the basic concept of the multi-armed bandit model, and later extend it by changing its parameters and/or assumptions. Finally, Dr. Tran-Thanh will show how these models can be applied to repeated security games, for both zero-sum and non zero-sum.

Wednesday, August 9th, 11 a.m.—12 p.m.

Hedco Chemical Engineering (HED) 116 Conference Room

Dr. Tran-Thanh is a Lecturer at the University of Southampton, UK. He obtained his PhD in Computer Science in 2012 at the same university. He has been conducting active research in a number of key areas of AI, mainly focusing on combining online machine learning, game theory, and incentive engineering to tackle resource -constrained decision making problems where one has to deal with strategic human participants and/or malicious opponents. Additionally, Dr. Tran-Thanh has also applied his theoretical findings to a number of real world applications, such as online keyword bidding, wireless sensor networks, and crowdsourcing.