

Seminar Talk

Sampath Jayarathna, Ph.D.
Assistant Professor
Department of Computer Science
Old Dominion University

Friday, November 02, 2018
3:00 p.m. KH 224

Title: Neuro-Information Retrieval: Unifying Relevance Feedback for User Modeling

Abstract:

Accurate models of user interest are valuable in personalizing the presentation of the often large quantity of information relevant to a query or other form of information requests. A user often interacts with multiple applications while working on a task. User models can be developed individually at each of the individual applications, but there is no easy way to come up with a more complete user model based on the distributed activity of the user. In this talk, I will introduce a novel unification framework for relevance feedback in adaptive information access; practically these models provide context for user interactions with everyday applications for user interest modeling. To tackle the cold-start problem in personalization, I will show how we can take advantage of many existing interactions combining various implicit and explicit relevance feedback indicators in a multi-application environment. I will also present a framework expanding the use of human eye movements as a source of implicit relevance feedback for user interest modeling.

Bio:

Dr. Sampath Jayarathna is an Assistant Professor of Computer Science at Old Dominion University, where he directs the Neuro-Information Retrieval and Data Science Laboratory (NIRDSLab). Before that, he was an Assistant Professor at California State Polytechnic University Pomona. Dr. Jayarathna earned a PhD in Computer science from the Texas A&M University College Station in 2016. His research interest includes, eye tracking, attention and working memory, executive function, EEG/EOG/GSR, and data science. Dr. Jayarathna has published in venues such as CIKM, CHIIR, JCDL, ETRA, ACM TAP and IEEE TBE. He received best student paper nomination at JCDL 2015. Dr. Jayarathna is a member of ACM, IEEE and Sigma XI.