TEXT MINING FOR BIOLOGY

by

Arzucan Özgür

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Place: Z11, Computer Engineering Building, GTU

All interested are cordially invited.

ABSTRACT:

The vast amount of biomedical literature and its continuing rapid growth makes it difficult or impossible for the biomedical researchers to keep up with the relevant publications and utilize the knowledge contained in them. As a consequence, most of the knowledge remains hidden in the unstructured text of published articles. In this talk, I will first describe a relation extraction technique related to natural language processing and machine learning for identifying the relations among biological entities in a sentence as well as context information such as relation types and experimental methods. Next, I will present a literature-based discovery approach based on integrating text mining with network analysis to uncover (potentially currently unknown) relationships among entities.

BIOGRAPHY:

Arzucan Özgür is an assistant professor at the Boğaziçi University Computer Engineering Department. Her research interests include text mining, natural language processing, and bioinformatics. Her recent focus has been on developing machine learning and natural language processing based methods for information extraction from massive amounts of textual data including scientific publications and social media data. She holds a PhD degree in Computer Science and Engineering from the University of Michigan, an M.S. degree and a B.S. degree in Computer Engineering from Bogazici University. She is a recipient of the European Commission Marie Curie Career Integration Grant and The Science Academy Young Scientist Award (BAGEP 2016, Turkey).