

**BIOINFORMATICS 2017 Fall SEMINAR SERIES**

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**MONDAY, September 25, 2017****3:30pm****DBI Room 102****iTextMine: Integrated Text Mining System for Large-Scale Knowledge Extraction from Literature*****Jia Ren******PhD Student, Bioinformatics and Systems Biology, University of Delaware*****ABSTRACT:**

In my presentation, I will describe the iTextMine system with an automated workflow to run multiple text-mining tools on large-scale text for knowledge extraction. The system employs parallel processing for dockerized text mining tools with a common JSON output format, and implements a text alignment algorithm to align entity offsets in the text for result integration. The system currently contains four in-house developed relation extraction tools for phosphorylation, phosphorylation-dependent PPI, miRNA-gene regulation, and gene-disease-drug-response relations. We have processed all Medline abstracts for the four tools. A website is built to allow users to browse the text evidence and view integrated results for knowledge discovery through a network visualization.