

# 6a.013.DU - 3-D Information Visualization Based on Citation Mining and Cognitive Computing

## Year 6 - Deep Dive Video

[6a.013.DU\\_Deep Dive Video \(11:58 minutes\)](#)

### Project Description

In this project, we investigated novel computational methods for discovering useful patterns and knowledge from the data sets of two specific domains: 1. The Web of Science mentions in scientific publications and 2. Physical activity data of COPD patients captured by monitoring devices. For the first data set, we explored the application of cutting edge machine learning and natural language processing (NLP) techniques to a subset of both meta-data and full-text scientific publications in hopes of finding new ways for users to derive actionable insights from this content. For the second data set, we applied a variety of statistical and machine learning techniques for visualizing, modeling, and predicting patients' behaviors. A visualization tool has been developed for the first data set and meaningful and useful analytic results have been reported back to the IAB mentor of the second data set.

### Project Team

Team Member	Role	Email	Phone Number	Academic Sites/Industry Members
Yuan An	PI	<a href="#">Yuan An</a>	(215) 895-2633	Drexel University
Yizhou Zang	Researcher	<a href="mailto:yizhouzang@gmail.com">yizhouzang@gmail.com</a>	Not available	Drexel University
Haolin Hong	Researcher	<a href="mailto:hh443@drexel.edu">hh443@drexel.edu</a>	Not available	Drexel University
Matthew Marschall	REU student	Not available	Not available	Drexel University
Rachel Fisher	REU student	Not available	Not available	Drexel University
Siling Chen	Co-op student	Not available	Not available	Drexel University
Parth Sharma	Co-op student	Not available	Not available	Drexel University
Nick Locantore	IAB Project Mentor	<a href="mailto:nicholas.w.locantore@gsk.com">nicholas.w.locantore@gsk.com</a>	Not available	<b>Funded by:</b> GlaxoSmithKline (GSK)
Jason Rollins	IAB Project Mentor	<a href="mailto:jason.rollins@clarivate.com">jason.rollins@clarivate.com</a>	Not available	<b>Funded by:</b> Clarivate Analytics

### Project Deliverables

	Deliverable
1.	Algorithms for applying cognitive computing and deep learning analysis for IAB data sets and problems.
2.	Methods for integrating simulation, analytics, and visualization for network exploration and pattern recognition.
3.	Visualization interfaces to support pattern recognition and knowledge discovery.
4.	Prototypes in selected domains.

### Project Documents

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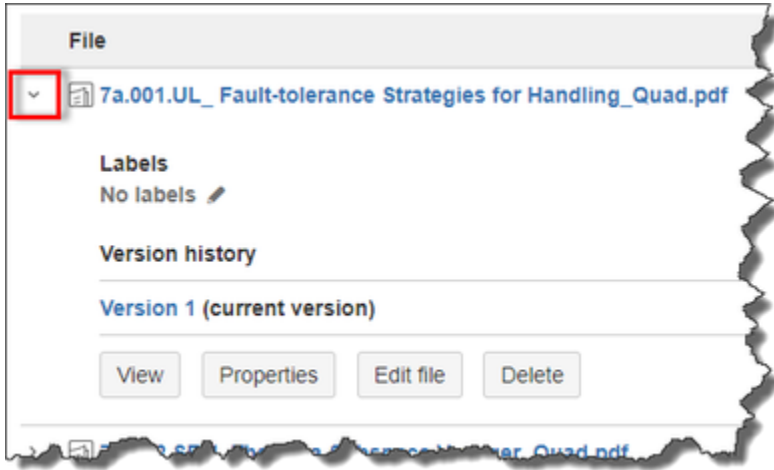
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