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The growth of big data enables the use of AI algorithms to derive insights and discover knowledge from the data. My research aims to study how to build general intelligent systems for analyzing big data, especially text data, to augment human intelligence, increase productivity, and optimize decision making in many application domains such as healthcare, medicine, education, and scientific discovery.

Research Interests

- General algorithms for big data analytics, especially by leveraging knowledge networks
- Models and systems for optimizing human-AI collaboration
- Intelligent infrastructures for integration of big data research, education and applications
- Intelligent task agents

Current Projects

- Personalized Nutrition Data Lab ([PNDDataLab](#))
- Collaborative Online Information Seeking ([TextData](#))
- Knowledge-based Nutrition Data Analysis ([recent paper](#))
- For more projects, see <https://timan.cs.illinois.edu/ir/project.html>

Interest Areas for Collaboration/Future Work

Looking for collaborators who have data sets that need to be analyzed or have complex decision problems that would benefit from using AI algorithms to augment human intelligence.



Keywords

Big nutrition data analysis, large language models, search engines, recommender systems, knowledge extraction from literature articles, interactive decision support, intelligent information system development