# Janani Kalyanam

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### Summary

I believe that it is at the intersection of different kinds of data sources (text, graph, image e.t.c.) that interesting predictive signals reside. I come up with ways to combine these inherently different data sources and develop machine learning tools to analyze them.

Currently, my focus is on detecting patterns from large volumes of microblogs using the information contained in the microblogs (text), and the user interaction information (graph). I have also previously worked on combining text and image data.

I use deep learning for natural language processing (word2vec), matrix factorization, and probabilistic graphical models to develop my tools.

#### Education

### University of California, San Diego

La Jolla, CA

Ph.D. in Electrical and Computer Engineering

present

Advisor: Professor Gert Lanckriet

Specialization: Machine Learning, Social Networks, Recommendation Systems, Deep Learning.

#### University of Wisconsin

Madison, WI

M.S. in Electrical and Computer Engineering

2009

Thesis: "Probabilistic Algorithm for List Viterbi Decoding"

Advisor: Professor Stark Draper

#### **Rutgers University**

New Brunswick, NJ

B.S. in Electrical and Computer Engineering

James. J. Slades Scholar for academic excellence

Dean's List, all semesters

2007

### Skills

Languages: C, Python, Matlab, LaTeX

Operating System: Linux

#### **Publications**

**Janani Kalyanam**, Mauricio Quezada, Barbara Poblete and Gert Lanckriet. (2015). "Early prediction and characterization of high-impact world events using social media." *Preprint* 

**Janani Kalyanam**, Amin Mantrach, Diego Saez-Trumper, Hossein Vahabi and Gert Lanckriet. (2015). "Leveraging Social Context for Modeling Topic Evolution." *Proceedings of the 21st* 

International Conference on Knowledge Discovery and Data Mining (KDD).

**Janani Kalyanam**, Sumithra Velupillai, Son Doan, Mike Conway and Gert Lanckriet. (2015). "Facts and Fabrications about Ebola: A Twitter Based Study" *SIGKDD Workshop on Connected Health in Big Data Era.* 

Best Paper Award.

**Janani Kalyanam** and Gert Lanckriet. (2014). "Learning from Unstructured Multimedia Data." Proceedings of the 23rd International Conference on World Wide Web (WWW).

Andrew Bolstad, Benjamin Miller, Joel Goodman and **Janani Kalyanam**. (2011). "Identification and Compensation of Wiener Hammerstein Systems with Feedback." *Proceedings of the 36th International Conference on Accoustics, Speech and Signal Processing.* 

Joel Goodman, Benjamin Miller, Andrew Bolstad, Jim Vian and **Janani Kalyanam**. (2011). "Physical Layer Considerations for Wideband Cognitive Radio." *Military Communications Conference*, 2011.

Janani Kalyanam. (2009). "Probabilistic Algorithm for List-Viterbi Decoding." Masters Thesis.

Chandrasekharan Raman, **Janani Kalyanam**, Ivan Seskar and Narayan Mandayam. (2007). "Distributed Spatio Temporal Spectrum Sensing: An Experimental Study." *Asilomar Conference on Signals, Systems and Computers*.

#### Work Experience

#### University of California, San Diego

La Jolla, CA

Teaching Assistant

Served as TA for programming courses at UCSD several times.

## Massachusetts Institute of Technology - Lincoln Labs

Lexinton, MA

Intern

2009

Worked on calibrating power amplifiers.

Merrill Lynch Pennington, NJ

Intern

2007

Web developer

Merrill Lynch Pennington, NJ

Intern

2006

System tester for the internal interactive voice response systems

## Miscellaneous

Completed the La Jolla Half Marathon (2013), Southern California Half Marathon (2014), and the Girls on the Go Run Half Marathon (2014).