Janani Kalyanam

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SUMMARY

I build machine learning based tools to extract useful information from social media which is inherently unstructured and noisy. I develop innovative unsupervised methods that can accommodate for the unstructured nature in the data, and combat the noise efficiently. I have used these methods predominantly on Twitter data to (1) discover trends of drug abuse, (2) identify illicit online pharmacies, and (3) identify high-impact news events at the early stages of their outbreak.

EDUCATION

University of California, San Diego — La Jolla, CA
Ph.D. in Electrical and Computer Engineering — Expected Spring 2017
Advisor: Professor Gert Lanckriet
Research keywords: social networks, machine learning, data science, unsupervised learning, NLP

University of Wisconsin — Madison, WI
M.S. in Electrical and Computer Engineering — 2009

Rutgers University — New Brunswick, NJ
B.S. in Electrical and Computer Engineering — 2007

RELEVANT COURSES

Statistical Learning, Convex Optimization, Parameter Estimation, Manifold Learning, Kernel Methods

SKILLS

Languages: C, C++, Java, Python, Matlab, LaTeX
Operating System: Linux, Windows, MAC

PUBLICATIONS

Janani Kalyanam, Mauricio Quezada, Barbara Poblete and Gert Lanckriet (2016). "Prediction and Characterization of High-Activity Events in Social Media Triggered by Real-World News" *PLOS ONE*

Janani Kalyanam, Takeo Katsuki, Gert Lanckriet and Tim Mackey (2016). "Exploring Trends of Nonmedical use of Prescription Drugs and Polydrug Abuse in the Twittersphere Using Unsupervised Machine Learning" *Addictive Behaviors*

Janani Kalyanam, Sumithra Velupillai, Mike Conway and Gert Lanckriet (2016). "From Event Detection to Story Telling on Microblogs" *Proceedings of the ACM/IEEE Conference on Advances in Social Network Analysis and Mining (ASONAM)*

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.

NEC Labs — Princeton, NJ
Research Intern — 2016
Worked on mining non-linear dependencies via neighborhood mixtures

Massachusetts Institute of Technology - Lincoln Labs — Lexinton, MA
Intern — 2009
Worked on calibrating power amplifiers.

Merrill Lynch — Pennington, NJ
Intern — 2006, 2007
Web developer, Testing for IVRs

MISCELLANEOUS

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