Krishna Y. Kamath

CONTACT INFORMATION

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OVERVIEW

- Worked on large scale relevance problems mostly related to recommendation systems.
- Experienced working on different parts of the tech-stack like batched hadoop jobs, building and using ML based models in production systems, designing/writing real-time thrift services and running A/B test experiments.
- Would like to work on challenging problems where I can apply my skills and at the same time continue to learn and develop new ones.

EXPERIENCE

Twitter, San Francisco, USA

Senior Software Engineer (Email tech lead/Jan 2016) **Jan 2015 to Present**

- Lead email team to design and develop infra to support ML based recommendations in email. This significantly improved user retention and engagement.
- Migrated user and tweet recommendations email scheduling from legacy batched system to a thrift service, allowing us to develop ML based models for scheduling emails.

Twitter, San Francisco, USA

Software Engineer **May 2013 to Dec 2014**

- Developed several user recommendation algorithms, primarily focussed at users for whom we don't have lot of network information. These algorithms used techniques like collaborative filtering and logistic regression. I then designed and ran A/B test experiments to evaluate and ship these algorithms in product.
- Analyzed user engagement patterns, social graph structure, etc and developed a logistic regression based model to predict future engagement probability. This is currently used by several products across Twitter.

Google, New York City, USA

Software Engineering Intern **May 2012 to August 2012**

- Worked with the backend team responsible for surfacing high-quality, spam-free reviews on Google+ Local.
- Analyzed Google's local reviews dataset to discover spamming patterns and improved the performance of an automated machine-learning based classifier by adding novel features based on these spamming patterns.

Department of Computer Science and Engineering, Texas A&M University, College Station, Texas USA

Graduate Research Assistant (PhD Research) **August 2008 to May 2013**

- Developed a suite of efficient algorithms for discovering social trails from large-scale real-time social systems. The algorithms were designed to meet the challenges associated with social streams, like its large-scale and rapidly changing clusters in the stream.
- Developed techniques for modeling and predicting the spatio-temporal dynamics of social trails. By modeling trail propagations we want to answer questions like, predict where some piece of information is going to be popular and predict how long it is going to stay popular there.

Cisco Systems, Bangalore, Karnataka USA

Software Engineer **July 2006 to August 2008**

- Developed a Eclipse-based GUI for a network management product. The product was specifically designed for large telecom service providers.
- Developed a set of integrated tools for proactive management of large customer networks. The application was developed using J2EE and Spring framework.

Technical Skills

Programming Languages: Scala, Python, Java
Frameworks: Scalding (hadoop), Heron, Aurora, Finagle, TensorFlow, Git

Education

Texas A&M University, College Station, Texas USA

Ph.D., Computer Science, August 2013

- Dissertation: Mining, Modeling, and Analyzing Real-Time Social Trails
- Advisor: Prof. James Caverlee
- GPA 4.0

National Institute of Technology, Rourkela, Rourkela, Orissa India

B.Tech., Computer Science and Engineering, May 2006

- First class with Honors
- GPA 8.80

Publications

1. James Caverlee, Zhiyuan Cheng, Daniel Z Sui, **Krishna Y Kamath**. Towards Geo-Social Intelligence: Mining, Analyzing, and Leveraging Geospatial Footprints in Social Media, **Bulletin of the IEEE Computer Society Technical Committee on Data Engineering**. Volume 36, Number 3, September 2013.

2. **Krishna Y. Kamath** and James Caverlee. Spatio-Temporal Meme Prediction: Learning What Hashtags Will Be Popular Where, Proceedings of 22^{nd} International Conference on Information and Knowledge Management (**CIKM**) 2013, San Francisco, California, USA

3. **Krishna Y. Kamath**, Ana-Maria Popescu and James Caverlee. Board Recommendation in Pinterest, Proceedings of 21^{st} Conference on User Modeling, Adaptation and Personalization (**UMAP**) Rome, Italy

4. Ana-Maria Popescu, **Krishna Y. Kamath** and James Caverlee. Mining Potential Domain Expertise in Pinterest, Proceedings of 21^{st} Conference on User Modeling, Adaptation and Personalization (**UMAP**) Rome, Italy

5. Kyumin Lee, **Krishna Y. Kamath** and James Caverlee. Combating Threats to Collective Attention in Social Media: An Evaluation, 7^{th} International AAAI Conference on Weblogs and Social Media (**ICWSM**) 2013, Boston, USA

6. **Krishna Y. Kamath**, James Caverlee, Kyumin Lee and Zhiyuan Cheng. Spatio-Temporal Dynamics of Online Memes: A Study of Geo-Tagged Tweets, Proceedings of 22^{nd} Annual ACM World Wide Web (**WWW**) Conference 2013, Rio de Janeiro, Brazil

7. Yuan Liang, James Caverlee, Zhiyuan Cheng and **Krishna Y. Kamath**. How Big is the Crowd? Event and Location Based Population Modeling in Social Media, Proceedings of the 24^{th} ACM conference on Hypertext and hypermedia (**HT**) 2013, Paris, France

8. **Krishna Y. Kamath**, James Caverlee, Daniel Sui and Zhiyuan Cheng. Spatial Influence vs. Community Influence: Modeling the Global Spread of Social Media, Proceedings of 21^{st} International Conference on Information and Knowledge Management (**CIKM**) 2012, Maui, Hawaii, USA (Acceptance rate: 13.4%)

9. **Krishna Y. Kamath** and James Caverlee. Content-Based Crowd Retrieval on the Real-Time Web, Proceedings of 21^{st} International Conference on Information and Knowledge Management (**CIKM**) 2012, Maui, Hawaii, USA (Acceptance rate: 13.4%)

10. Elham Khabiri, James Caverlee and **Krishna Y. Kamath**. Predicting Semantic Annotations on the Real-Time Web, Proceedings of the 23^{rd} ACM conference on Hypertext and hypermedia (**HT**), 2012, Milwaukee, Wisconsin, USA (Acceptance rate: 27.5%)

11. Kyumin Lee, James Caverlee, **Krishna Y. Kamath** and Zhiyuan Cheng. Detecting Collective Attention Spam, Proceedings of WebQuality Worksop at 21^{st} Annual ACM World Wide Web (**WWW**) Conference 2012, Lyon, France.

12. **Krishna Y. Kamath** and James Caverlee. Expert-Driven Topical Classification of Short Message Streams. In proceedings of 3^{rd} IEEE Conference on Social Computing (**SocialCom**) 2011. (Acceptance rate: 9.8%)

13. Zhiyuan Cheng, Kyumin Lee, James Caverlee and **Krishna Y. Kamath**. Toward Traffic-Driven Location Based Web Search. In proceedings of 20^{th} ACM International Conference on Information and Knowledge Management (**CIKM**) 2011. (Acceptance rate: 15%)

14. **Krishna Y. Kamath** and James Caverlee. Transient Crowd Discovery on the Real-Time Social Web. In Proceedings of 4^{th} ACM International Conference on Web Search and Data Mining (**WSDM**) 2011. (Acceptance rate: 22.3%)

15. Said Kashoob, James Caverlee and **Krishna Y. Kamath**. Community-Based Personalized Search of the Social Web. Proceedings of the 21^{st} ACM conference on Hypertext and hypermedia (**HT**) 2010. (Acceptance rate: 34%)

16. James Caverlee, Zhiyuan Cheng, Brian Eoff, Chiao-Fang Hsu, **Krishna Y. Kamath**, Said Kashoob, Jeremy Kelley, Elham Khabiri, Kyumin Lee. SocialTrust++: Building Community-Based Trust in Social Information Systems. Proceedings of the 6^{th} International Conference on Collaborative Computing: Networking, Applications and Worksharing (**CollaborateCom**), 2010.

Posters and Demos

1. **Krishna Y. Kamath** Ana-Maria Popescu and James Caverlee. Board Coherence in Pinterest: Non-visual Aspects of a Visual Site. (Poster). In proceedings of 20^{th} Proceedings of 22nd Annual ACM World Wide Web (**WWW**) Conference 2013, Rio de Janeiro, Brazil.
2. **Krishna Y. Kamath** and James Caverlee. Discovering Trending Phrases on Information Streams (Poster). In proceedings of 20^{th} ACM International Conference on Information and Knowledge Management (**CIKM**) 2011.
3. James Caverlee, Zhiyuan Cheng, Brian Eoff, Chiao-Fang Hsu, **Krishna Y. Kamath**, and Jeff McGee. CrowdTracker: Enabling Community-Based Real-Time Web Monitoring (Demo). Proceedings of 34th Annual ACM SIG Information Retrieval (**SIGIR**) Conference 2011, Beijing, China 2011.
4. **Krishna Y. Kamath** and James Caverlee. Identifying Hotspots on the Real-Time Web (Poster). Proceedings of the 19^{th} ACM International Conference on Information and Knowledge Management (**CIKM**) 2010.

Patents

1. Dynamic geohash-based geofencing US9426620. (Issued 2016).
2. Taxonomy Based Multiple Ant Colony Optimization (TaMACO) for Routing in Mobile Ad-hoc Networks. US7760718. (Issued 2010).

Recognitions

Graduate Research Excellence Award	**2012 - 13**
Awarded the Royce E. Wisenbaker Graduate Fellowship	**2009 - 10**