Kishaloy Halder

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ACADEMIC QUALIFICATION

Qualification	University	Year	CPI obtained/Max CPI
PhD (pursuing)	National University of Singapore	2018(expected)	4.5/5
M.Tech in CSE	IIT Bombay	2012	8.65/10
B.Tech in CSE	WBUT	2010	8.91/10

RESEARCH INTERESTS

Recommendation Systems, Information Retrieval, Natural Language Processing, Deep Learning, Machine Learning, Probabilistic Graphical Models, Health Forum Mining.

RESEARCH PUBLICATIONS

- **K Halder**, L Poddar, MY Kan, "Cold Start Thread Recommendation as Extreme Multi-label Classification", XMLC for Social Media, WWW 2018.
- **K Halder**, MY Kan, K Sugiyama, "Health Forum Thread Recommendation using an Interest Aware Topic Model". CIKM, 2017.
- **K Halder**, L Poddar, MY Kan, "Modeling Temporal Progression of Emotional Status in Mental Health Forum: A Recurrent Neural Net Approach", WASSA, EMNLP 2017.
- A Wang, **K Halder**, MY Kan,"Named Entity Recognition from Chinese Microblog Text" [under review in TACL]
- **K Halder**, U Bellur, P Kulkarni, "Risk Aware Provisioning and Resource Aggregation based Consolidation of Virtual Machines", Fifth International Conference on Cloud Computing, IEEE Cloud 2012
- S Das, **K Halder**, S Pratihar, P Bhowmick, "Properties of Farey Sequence and their Applications to Digital Image Processing", International Conference on Information Processing, 2010 (**Best Paper Award**)

PHD RESEARCH PROJECT

Personalized Recommendation in Healthcare Forums
Supervised by: Prof. Kan Min-Yen **[Jan '15 - till date]**

- A two-stage probabilistic graphical model based framework is introduced in which partially observed higher-level interests on topics expressed by each user can be modeled to provide Personalized Recommendation.
- The model is specialized for use in consumer health forum thread recommendation by equating user reported clinical conditions as interests. The condition-specific latent topics of threads and user-interests discovered in the first stage are further optimized in the second stage using a topic regression model.
- Importantly, the framework imbues the recommendation process with added transparency, allowing a resultant recommendation system to justify its recommendation with respect to each user's interest in certain health conditions.

INDUSTRY EXPERIENCE

Flipkart Internet Private Limited, Bangalore
Software Development Engineer, Web-Engagement **[Jan '14 - June '14]**

- Worked in the User Generated Content(UGC) team. Developed cross-platform apis for website, mobile site, and mobile app serving thousands of requests per second
- Automated analysis of aspect wise user sentiment from user-reviews and ratings
- Building the website notification system to identify and attract potential customers

Symantec Corporation, Pune
Associate Software Engineer, Information Availability Group **[Aug '12 - Jan '14]**

- Worked on **DRAzure**, a collaboration between **Microsoft** and **Symantec** to provide **Disaster Recovery as a Service** with **Windows Azure** as the cloud platform

IBM India Software Lab, Pune
Intern, Tivoli Analytics and Decision Support for Data Center **[May '11 - July '11]**

- Developed a Risk Scoring module to capture the risk associated with sizing of Virtual Machines in Infrastructure Cloud

SOFTWARE SKILLS

- Programming Languages : C, C++, C#, JAVA
- Scripting Languages : Python (scikit, keras), Perl, Bash
- Databases : MySQL, Couchbase
- Big Data Frameworks : Map-Reduce(Hadoop), ElasticSearch
- Version Control, Build Tools: svn, Git, Maven

COURSES TAKEN (PG ELECTIVES)

- Knowledge Discovery and Data Mining, Social Media Computing, Big Data Analytics, Advanced DBMS
- Artificial Intelligence, Introduction to Probability and Linear algebra, Foundations of Machine Learning
- New Trends in IT (Virtualization and Cloud Computing), Computer Networks, Mobile Computing
- Implementation Techniques of Relational Database Management Systems

OTHER RECENT RESEARCH PROJECTS

Modeling Temporal Progression of Mental Health using an RNN based approach
Supervised by: Prof. Kan Min-Yen **[May '17 - July '17]**

- Investigated a large dataset from mental health section of `HealthBoards.com`, and identified signals that are indicative of progression of mental health
- Defined a temporal mental health prediction task. Given past interactions in the forum, the task is to predict users' mental status in the future
- Proposed an RNN based architecture that can predict the future mental status with reasonable accuracy.

Finding Popular Travel Destination From Tweets
Guided by: Prof. Chua Tat-Seng **[Jan '15 - Apr '15]**

- Developed a web application that uses millions of tweets from Twitter users all across the globe to generate a dynamic list of trending destinations emerging from live reactions of people on social media.

Information Extraction from Social Media
Supervised by: Prof. Ooi Beng Chin **[Autumn '14]**

- Developed a system to present a meaningful subset of tweets given a query. Modified off-the-shelf "river-twitter" library to receive tweets in batches, extracted the named entities (using twitter-NER) from them, and finally storing them in a distributed inverted index (ElasticSearch).
- Retrieving all the tweets given a query, performing selection and ranking based on temporal and contextual information present in the tweet and present it to the user
- Segregating computation-tasks into offline and online components optimally to incur minimal retrieval latency

PAST RESEARCH PROJECTS

Risk Aware Provisioning and Placement of Virtual Machines **M.Tech Project**
Sponsored by IBM, Guided by Prof. Purushottam Kulkarni and Prof. Umesh Bellur **[May'11-July '11]**

- **Goal:** Developing a **Risk scoring model** that captures the risk associated with sizing and placement of Virtual Machines (VMs). The number of servers required to host a certain numbers of VMs has to be minimized ensuring that the performance degradation of the individual VMs is within some acceptable threshold
- **Contribution:** Designed a risk scoring model which depicts the overall chance of getting resource when it is required. Our placement algorithm leads to 32% reduction in the number of servers required to host a set of VMs compared to other state-of-the-art placement algorithms

SCHOLASTIC ACHIEVEMENTS

- Secured **All India Rank 60** out of 107086 candidates (percentile: 99.94) in GATE 2010
- Was among **top 30** qualifying students from all over India in JEST 2010 conducted by Chennai Mathematical Institute
- Obtained **CAS**(Center for Advanced Studies) grant from **IBM** to attend the IEEE Cloud 2012 Conference
- **Winner** of '**Information on Demand**', a technical contest organized by **IBM University Relations** in 2010
- Was awarded **full-scholarship** to attend **Workshop on Research Frontiers in Computing** organized by NUS in 2012