
Kishaloy Halder

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ACADEMIC QUALIFICATION

Qualification	University	Year	CPI obtained/Max CPI
Ph.D. (pursuing)	National University of Singapore	2019(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

RESEARCH PUBLICATIONS

- **K Halder**, HT Cheng, “Modeling Information Need of Users in Search Sessions”, [Under Review at CIKM 2019].
- **K Halder**, MY Kan, K Sugiyama, “Predicting Helpful Posts in Open-Ended Discussion Forums: A Neural Architecture”, NAACL 2019.
- H Nguyen, K Sugiyama, MY Kan, **K Halder**, “Treatment Side Effect Prediction from Online User-generated Content”, LOUHI, EMNLP 2018.
- **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.
- **K Halder**, U Bellur, P Kulkarni, “Risk Aware Provisioning and Resource Aggregation based Consolidation of Virtual Machines”, IEEE Cloud 2012.
- S Das, **K Halder**, S Pratihari, P Bhowmick, “Properties of Farey Sequence and their Applications to Digital Image Processing”, ICIP 2010 (**Best Paper Award**).

PHD RESEARCH PROJECT

Automatically Facilitating Discussion in Online Forums
School of Computing, NUS

[Supervised by: **Prof. Kan Min-Yen**]
[Jan '15 - till date]

- Developed ML, and NLP based solutions to improve thread visibility and user engagement in online forums
- Worked on probabilistic graphical models, and deep learning models to capture the similarity between users' interests and textual content of threads in order to develop generic recommendation systems. Proposed NLP classification models to identify important posts in long running discussion threads.
- The proposed models have been effective across multiple domains such as reddit, coursera, and stackexchange.

AI/ML EXPERIENCE

Google, Mountain View
Research Intern, Google Brain

[Supervised by: **Heng-Tze Cheng**]
[July '18 - Nov '18]

- Worked in the field of Conversational Recommendation to improve session search experiences of users
- Proposed, and implemented Deep Neural Network models to study large real-world session search datasets

NUS, Singapore
Research Assistant

[Supervised by: **Min-Yen Kan**]
[Jan '19 - till date]

- Worked in collaboration with NUS, and SkillsFuture Singapore to develop a deep learning models for a course recommendation system based on user profile and dynamic job market

PROFESSIONAL SERVICES

- Have acted as Reviewer/PC member for NLP, IR conferences e.g., NAACL, SIGIR, JCDL, AAAI

PAST 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

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++, JAVA, Python (scikit, keras, TensorFlow)
- Databases : MySQL, Couchbase
- Big Data Frameworks : Map-Reduce(Hadoop), ElasticSearch
- Version Control, Build Tools: svn, Git, Maven, Piper

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

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]

- 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 by performing selection and ranking based on temporal and contextual information.

PAST RESEARCH PROJECTS

Risk Aware Provisioning and Placement of Virtual Machines

Sponsored by IBM, Guided by Prof. Purushottam Kulkarni and Prof. Umesh Bellur

M.Tech Project
[May'11-July '12]

- 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