Bhushan Kotnis

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Summary

- 3+ years experience working with knowledge graphs, relation extraction and graph embeddings.

- Highly motivated fast learner with projects in diverse areas ranging from campaign optimization to deep learning for synonym extraction, link prediction, and graph-based recommendation.

- Excellent communicator and public speaker with 20+ written publications, poster presentations, and oral talks.

Work Experience

Computational Linguist, Heidelberg University, Germany   [Nov. 2016 - Current]

- Implemented deep learning models in PyTorch and Theano to infer semantic and fact-based relations (books-by-authors, director-directed-movie) in knowledge graphs.

- Paper on Negative Sampling won the Best Paper Award in KBCOM 2018. Our data appropriate negative sampling can improve baseline performance of link prediction algorithms by over 20 percent.

Data Science Intern, BloomReach, India   [Jan. 2016 - March 2016]

- Helped BloomReach learn linguistic relations for improving search quality by learning product-accessories and product-categories using large query data.

- Leveraged RNN based word embeddings for generating synonyms that are critical for improving search hits.

Research Assistant, Machine and Language Learning Lab   [Jan. 2015 - Jan. 2016]

- Formulated machine learning algorithms to address sparsity in Linguistic Knowledge Graphs (KG). Research published and presented at a top tier conference.

- Tamed large corpora (24 GBs, 640 million lines) of unstructured text data for real time lookup using MongoDB.

Software Developer, Fast Technology, New Jersey   [Jan. 2010 - Jan. 2011]

- Engineered and implemented a solution in a code generator to extract SQL data from a legacy Insurance Lifecycle data model and migrate it to a new Lifecycle data model.
- Managed a team of offshore developers in the face of aggressive deadlines.

Education

Indian Institute of Science, Bangalore (IISc).

PhD, Math. modeling and Optimizing Campaigns in Social Networks   [Aug. 2011 - Aug. 2016]

Modeled and analyzed epidemic and information spreading in social networks using mathematical models and simulation. Developed algorithms for optimizing budget constrained viral marketing campaigns on social networks. Research findings resulted in 5+ journal papers and 4+ presentations in national and international conferences.

Rutgers University, New Brunswick, NJ.
Master of Science, Electrical and Computer Engineering   [Aug. 2007-Jan.2010]

Mumbai University, Mumbai.
Bachelor of Engineering, Electronics   [Aug. 2003 - Aug. 2007]

Skills, Tools

Data Science	Implementation	Languages
Machine Learning	Python	English (Fluent),
Deep Learning	PyTorch & Tensorflow,	German (Basic)
Natural lang. processing	Java	Scala	SQL	
Statistics & Data Analysis	MongoDB	Spark	

Affiliations

- Member: Association for Computational Linguistics   [Sep. 2015 - Current]

Hobbies

- Adventure Hiking and Camping
- Science Enthusiast