CHANDRAHAS

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NBH-611, IISc Hostels
Indian Institute of Science, Bangalore, India

EDUCATION

PhD, Computer Science & Engineering *July 2015 - Present*
Indian Institute of Science, Bangalore
Interpretable Representation Learning for Knowledge Graphs and Text

Master of Engineering, Computer Science & Engineering *August 2011 - July 2013*
Indian Institute of Science, Bangalore
Specialization : Machine Learning
CGPA: 6.7/8.0

Bachelor of Engineering, Computer Science & Engineering *August 2007 - June 2011*
Bhilai Institute of Technology, Durg [C.G.]
Marks: 80.6%

PUBLICATIONS

Towards Understanding the Geometry of Knowledge Graph Embeddings July 2018

Authors: Chandrahas, Aditya Sharma, Partha Pratim Talukdar
Conference: Association for Computational Linguists (ACL) 2018

Inducing Interpretability in Knowledge Graph Embeddings Dec 2017

Authors: Chandrahas, Tathagata Sengupta, Cibi Pragadeesh, Partha Pratim Talukdar
Preprint: arXiv:1712.03547

Revisiting Simple Neural Networks for Learning Representations of Knowledge Graphs Nov 2017

Authors: Srinivas Ravishankar, Chandrahas, Partha Pratim Talukdar
Conference: Automated Knowledge Base Construction (AKBC) Workshop at NIPS 2017

Learning Score Systems for Patient Mortality Prediction in Intensive Care Units via Orthogonal Matching Pursuit Dec 2014

Authors: Aadirupa Saha, Chandrahas, Harikrishna Narasimhan, Sriram Sampath, Shivani Agarwal
Conference: International Conference on Machine Learning and Applications (ICMLA) 2014

EXPERIENCE

IBM Research Lab June 2016 - August 2016
Research Intern *Bangalore, India*

· Worked on Task Specific Knowledge Graph (KG) Construction methods where the final structure (nodes and edges) of KG is determined by an end task, like classification.

· We came up with a Probabilistic Graphical Model based formulation for the problem and used Collapsed Gibbs Sampling for the inference task.

Veveo R&D, Rovi Corporation August 2013 - July 2015
Software Engineer *Bangalore, India*

· Worked on conversation based search on entertainment domain.
· My work focused on finding user intents for natural language queries and finding relationships between multiple subsequent queries and context management during conversation.
· As a part-time project, I also worked on developing various tools (web-based and automation scripts) which is used by the team for quick debugging.

PROJECTS

Predicting mortality in Intensive Care Units April 2012 - July 2013
ME Thesis

· This project aims to develop a technique for estimating the probability of patients mortality in the Indian intensive care units using various observations from patients like heart rate, blood pressure etc.
· We applied different classification techniques (specifically, linear and non-linear logistic regression) to this problem.
· We also proposed a boosting-style approach for predicting patients mortality rates, which automatically learns thresholds on features and corresponding weights, resulting in a score-based system.

Study of Parallel Coordinate Descent Algorithms August 2015 - December 2015

· We studied parallel versions of Coordinate Descent Algorithms and also implemented and conducted experiments with some of these algorithms.
· Specifically, we implemented following algorithms:

- Parallel Coordinate Descent Methods for Big data Optimization by Peter Richtarik et al, 2013
- Accelerated, Parallel and Proximal Coordinate Descent by Olivier Fercoq et al, 2013

Entity Linking August 2015 - December 2015

· We studied the effects of co-reference resolution (using Stanford CoreNLP) on the performance of Wikifier [`https://cogcomp.cs.illinois.edu/page/software_view/Wikifier`] system for Disambiguation to Wikipedia task.

Null Dereference Analysis in Java Programs September 2011 - November 2011

· We applied the abstract interpretation framework for the analysis of null dereferences in Java programs using Soot framework.

TECHNICAL SKILLS

Programming	C, C++, Java, Python, Shell Scripting.
Frameworks & Tools	TensorFlow, Theano, MATLAB, Eclipse, LaTeX, Python-Flask and Jinja2.
Expertise	Machine Learning, Optimization, Natural Language Processing, Algorithms.

ACHIEVEMENTS AND POSITIONS OF RESPONSIBILITY

AIR-44 in GATE-2011

Honors in Bachelor of Engineering

Certificate of Excellence in Mathematics in 12th

Gave talks on Introduction to Machine Learning in CSA Summer School 2013 and Representation Learning for text in CSA Summer School 2016

Led the publicity team for department (CSA) Open-days 2013 and CSA Summer School 2013