

CHANDRAHAS

dewangan.chandrahas@gmail.com

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

Inducing Interpretability in Knowledge Graph Embeddings

Dec 2020

Authors: Chandrahas, Tathagata Sengupta, Cibi Pragadeesh, Partha Pratim Talukdar

Conference: International Conference on Natural Language Processing (ICON) 2020

Learning to Interact: An Adaptive Interaction Framework for Knowledge Graph Embeddings

Dec 2020

Authors: Chandrahas, Nilesh Agrawal, Partha Pratim Talukdar

Conference: International Conference on Natural Language Processing (ICON) 2020

Towards Understanding the Geometry of Knowledge Graph Embeddings

July 2018

Authors: Chandrahas, Aditya Sharma, Partha Pratim Talukdar

Conference: Association for Computational Linguistics (ACL) 2018

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

Facebook

September 2018 - November 2018

Intern

London, UK

- Worked on search query recommendation.
- We came up with new methods for query recommendation which improved user engagement on search result page.

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.

TECHNICAL SKILLS

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

ACHIEVEMENTS AND POSITIONS OF RESPONSIBILITY

Reviewer for EMNLP 2020, ICON 2020, NAACL 2021

Student volunteer for EMNLP 2020, ACL 2018, 2020

Google travel grant for attending ACL 2018

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

Special Recognition Award while working at Veveo R&D

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

AIR-44 in GATE-2011

Honors in Bachelor of Engineering

Certificate of Excellence in Mathematics in 12th