AAMOD KHATIWADA

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RESEARCH INTERESTS

Data Discovery and Integration, Knowledge Graphs, Data Management, Semantic Web

EDUCATION

Northeastern University, Khoury College of Computer Sciences, Boston, MA, USA

Sep 2020 - Present

PhD Candidate, Computer Science, Current GPA: 3.905

Advised by: Dr. Renée J. Miller

Tribhuvan University, Institute of Engineering (IOE), Kathmandu, Nepal

Nov 2014 - Nov 2018

Bachelor's Degree in Electronics and Communication Engineering

Distinction, Department Topper

PUBLICATIONS

- A. Khatiwada, G. Fan, R. Shraga, Z. Chen, W. Gatterbauer, R. J. Miller, M. Riedewald, "SANTOS: Relationship-based Semantic Table Union Search" (accepted for SIGMOD 2023). https://arxiv.org/abs/2209.13589
- A. Khatiwada, R. Shraga, W. Gatterbauer, R.J. Miller, "Integrating Data Lake Tables", in PVLDB, 16(4):932-945, 2022. https://www.vldb.org/pvldb/vol16/p932-khatiwada.pdf
- A.Khatiwada, S. Shirai, K. Srinivas, O. Hassanzadeh, "Knowledge Graph Embeddings for Causal Relation Prediction", in Deep Learning for Knowledge Graphs Workshop (DL4KG@ISWC 2022). https://alammehwish.github.io/dl4kg2022/papers/paper-8.pdf
- S. Shirai, **A.Khatiwada**, D. Bhattacharjya, O. Hassanzadeh, "Rule-Based Link Prediction over Event-Related Causal Knowledge in Wikidata", in 3rd Wikidata Workshop (Wikidata@ISWC2022). https://ceur-ws.org/Vol-3262/paper14.pdf
- O. Hassanzadeh, P. Awasthy, K. Barker, O. Bhardwaj, D. Bhattacharjya, M. Feblowitz, A. Khatiwada, L. Martie, S. F. Mbouadeu, J. Ni, A. Saha, S. Shirai, K. Srinivas and L. Yip, "Knowledge-Based News Event Analysis Toolkit", in ISWC 2022. https://ceur-ws.org/Vol-3254/paper399.pdf
- A. Khatiwada, P. Kadariya, S. Agrahari and R. Dhakal, "Big Data and Deep Learning Based Sentiment Analysis System for Sales Prediction", in IEEE International Conference on Innovating Technology for Humanity, Pune, 2019. pp. 1-6. https://doi.org/10.1109/PuneCon46936.2019.9105719

PATENTS

• O. Hassanzadeh, **A.Khatiwada**, S. Shirai "Link Prediction Using an Ensemble of Representations and Rules (under revision)

EXPERIENCE

IBM Research, Thomas J. Watson Research Center, Yorktown Heights, NY, USA

May 2022 - Aug 2022

Research Intern

Mentor: Dr. Oktie Hassanzadeh

• Led a project on detecting the causal relations in Knowledge graphs using embeddings and GNN-based models.

Data lab, Northeastern University, Boston, MA, USA

Sept 2020 - Present

Graduate Research Assistant

- Led a group project entitled SANTOS on finding the unionable open data tables by detecting their semantic types.
- Developing novel techniques and algorithms to integrate open data tables and web tables in a principled way.

Tribhuvan University, Kathmandu, Nepal

Nov 2018 - Jan 2020

Teaching Assistant (Department of Electronics and Computer Engineering)

- Carried out lab classes on C programming, Digital Logic and Big Data Analytics.
- Assisted final year students to design and debug their major projects.

AWARDS AND EXTRA CURRICULAR

• Awarded as **the best undergraduate student** at Electronics and Computer Department, Tribhuvan University, Nepal for three consecutive years (Sophomore, Junior and Senior)

SKILLS

- Programming: SPARQL, Python, C, C++, PHP, SQL, JavaScript, Java, Solidity, Assembly Programming
- Tools and frameworks: Knowledge Graphs, Large language models, Hadoop MapReduce, Spark, Laravel, jQuery, D3, Tensorflow, PyTorch LATEX

GRADUATE COURSEWORK

Information Visualization (project: https://aamodkh.github.io/theta-join-visualization), Distributed Systems (project: https://github.com/aamodkh/distributed-datalake-tapestry), Principle of Scalable Database Management, Advanced Algorithm, Large Scale and Parallel Data Processing, Special Topics in Database Management