# 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: 3.939

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, R. Shraga and R. J. Miller, "DIALITE: Discover, Align and Integrate Open Data Tables", accepted at SIGMOD (Demo track), 2023.
- A. Khatiwada, G. Fan, R. Shraga, Z. Chen, W. Gatterbauer, R. J. Miller and M. Riedewald, "SANTOS: Relationship-based Semantic Table Union Search", accepted at SIGMOD, 2023. https://arxiv.org/abs/2209. 13589
- A. Khatiwada, R. Shraga, W. Gatterbauer and 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 and 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 and O. Hassanzadeh, "Rule-Based Link Prediction over Event-Related Causal Knowledge in Wikidata", in 3rd Wikidata Workshop (Wikidata@ISWC), 2022. 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** and S. Shirai, "Link Prediction Using an Ensemble of Representations and Rules (under revision)

#### **TALKS**

• A.Khatiwada and G. Fan, "Table Discovery and Integration in Data Lakes: Challenges and Solutions", in Northeast Database Day, 2023. https://northeastern-datalab.github.io/nedbday/2023/

## **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

- 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

- Leadership And Mentorship Program (LAMP) Scholarship from the Dean of the Whitacre College of Engineering, Texas Tech University, TX, USA.
- 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: <a href="https://aamodkh.github.io/theta-join-visualization">https://github.com/aamodkh/distributed-datalake-tapestry</a>), Principle of Scalable Database Management, Advanced Algorithm, Large Scale and Parallel Data Processing, Special Topics in Database Management