Suryamukhi Kuchibhotla

Date of Birth:	01.12.1993
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Education and Qualification

08/2019 – 11/2024

Doctorate in Computer Science and Engineering,
Indian Institute of Technology Hyderabad, India
Research Interests: Natural Language Processing, Deep Learning, Recommendation Systems, Large Language Models
Dissertation Title: Facilitating Knowledge Sharing via Enhanced Entity Relations Modelling
CGPA: 9.36 (out of 10)

01/2017 – 07/2019

Master of Technology in Computer Science and Engineering,
Indian Institute of Technology Hyderabad, India
Research Interests: Link Analysis, Fraud Analytics, Social Network Analysis, Anomaly Detection
CGPA: 9.27 (out of 10)

10/2012 – 05/2016

Bachelor of Engineering in Computer Science and Engineering
Jawaharlal Nehru Technological University Hyderabad, India
Specializations: Recommendation Systems, Business Analytics, Predictive Analytics
Aggregate: 85.56%

Professional Experience

Since 08/2019

Doctoral Student,
Indian Institute of Technology Hyderabad, India

- Conducted research in entity and relation extraction from natural language texts to support summarization, semantic organization, and content recommendation.
- Worked on large language models for enhanced relationship extraction and text processing tasks.
- Worked as Teaching Assistant (TA) for multiple courses related to NLP and tutored students in understanding complex concepts.
- Taught AI programming courses using Python and led tutorial sessions
- Provided research mentorship to several undergraduate and Master's students for their thesis projects.

01/2017 – 07/2019

Research and Teaching Assistant,
Indian Institute of Technology Hyderabad, India

- Conducted research in link analysis, fraud analytics, anomaly detection and social network analysis, collaborating with the Commercial Taxes Department, Government of Telangana, India to address the problem of tax evasion.

- Developed several machine learning models to identify illegitimate transactions and fraudulent communities of taxpayers, as well as fictitious transaction cycles, contributing to enhanced detection of fraud.
- Assisted in teaching certification courses for working professionals on Business Analytics and Insurance Analytics using Python and R, conducted by the CSE department.
- Served as a Teaching Assistant (TA) for relevant courses such as data mining and social network analysis methods.

06/2016 – 12/2016

Student Project Assistant,
Indian Institute of Technology Hyderabad, India

- Worked on a collaborative project *"Flight Operations Quality Assurance and Performance Optimization using Big Data Analytics"* with Honeywell Aerospace.
- Implemented association rule mining and sequence rule mining methods to identify the causation effects among various types of faults in different phases of the flight of an aircraft.

08/2015 – 05/2016

Student Intern,
Indian Institute of Technology Hyderabad, India

- Worked on B.Tech Thesis Project *"Predictive Analytics on Citibank Data for Identifying Prospective Customers"* as a part of an internship at Indian Institute of Technology, Hyderabad.
- Developed a recommendation system to identify potential customers for Citibank.
- Leveraged feature engineering and data analysis to improve the accuracy of customer segmentation and recommendation.

Skills

Programming Languages	Python, C++, R, MATLAB, Git
Libraries & Tools	PyTorch, TensorFlow, Huggingface, Scikit-learn
Productivity & Design	LATEX, Microsoft Office, GIMP, Inkscape, Origin
Languages	English (*Fluent*), German (*Beginner*), Hindi (*Fluent*), Telugu (*Native*)
Soft Skills	Analytical thinking and problem solving Strong communication skills in both verbal and written forms Effective time management and organizational skills Leadership and team coordination skills

Honors and Awards

- Won Academic Excellence Award at IITH
- Won Research Excellence Award at IITH
- Served as a Board of Studies member for the autonomous college GNITS, Telangana, India
- Participated, and won prizes in several intercollegiate co-curricular competitions as an undergraduate student

Publications

1. Suryamukhi K and Manish Singh. “TpT-ADE: Transformer Based Two-Phase ADE Extraction.” ***(Accepted at CoNLL 2024)***
2. Kuchibhotla, S. & Singh, M. (2023). Linking Rare and Popular Tags in CQA Sites. In Information Systems Development, Organizational Aspects and Societal Trends (ISD2023 Proceedings). Lisbon, Portugal: Instituto Superior Técnico. ISBN: 978-989-33-5509-1. https://doi.org/10.62036/ISD.2023.42
3. Suryamukhi K., P. D. Vivekananda, and Manish Singh. “Mining Tag Relationships in CQA Sites.” Conceptual Modeling: 40th International Conference, ER 2021, Virtual Event, October 18–21, 2021, Proceedings 40. Springer International Publishing, 2021.
4. Mathews J, Mehta P, Suryamukhi K, Babu S. Link prediction techniques to handle tax evasion. In Proceedings of the 3rd ACM India Joint International Conference on Data Science & Management of Data (8th ACM IKDD CODS & 26th COMAD) 2021 Jan 2 (pp. 307-315).
5. Mehta P, Mathews J, Bisht D, Suryamukhi K, Kumar S, Babu CS. Detecting tax evaders using TrustRank and spectral clustering. In Business Information Systems: 23rd International Conference, BIS 2020, Proceedings 23 2020 (pp. 169-183). Springer International Publishing.
6. Mehta P, Mathews J, Rao SK, Kumar KS, Suryamukhi K, Babu CS. Identifying malicious dealers in goods and services tax. In 2019 IEEE 4th International Conference on Big Data Analytics (ICBDA) 2019 Mar 15 (pp. 312-316). IEEE.
7. Mehta P, Mathews J, Kumar S, Suryamukhi K, Babu CS. Curtailing the Tax Leakages by Nabbing Return Defaulters in Taxation System. In Data Mining: 17th Australasian Conference, AusDM 2019, Proceedings 17 2019 (pp. 183-195). Springer Singapore.
8. Mehta P, Mathews J, Kumar S, Suryamukhi K, Sobhan Babu C, Kasi Visweswara Rao SV. Big data analytics for nabbing fraudulent transactions in taxation system. In BigData 2019: 8th International Congress, Proceedings 8 2019 (pp. 95-109). Springer International Publishing.
9. Mehta P, Mathews J, Kumar S, Suryamukhi K, Babu CS, Rao SK, Shivapujimath V, Bisht D. Big data analytics for tax administration. In Electronic Government and the Information Systems Perspective: 8th International Conference, EGOVIS 2019, Proceedings 8 2019 (pp. 47-57). Springer International Publishing.
10. Mathews J, Mehta P, Suryamukhi K, Bisht D, Chintapalli SB, Rao SK. Regression analysis towards estimating tax evasion in goods and services tax. In 2018 IEEE/WIC/ACM International Conference on Web Intelligence (WI) 2018 Dec 3 (pp. 758-761). IEEE.
11. Mehta P, Mathews J, Suryamukhi K, Kumar KS, Babu CS. Predictive modeling for identifying return defaulters in goods and services tax. In 2018 IEEE 5th International Conference on Data Science and Advanced Analytics (DSAA) 2018 Oct 1 (pp. 631-637). IEEE.
12. Kumar N, Yadandla A, Suryamukhi K, Ranabothu N, Boya S, Singh M. Arousal prediction of news articles in social media. InMining Intelligence and Knowledge Exploration: 5th International Conference, MIKE 2017, Proceedings 5 2017 (pp. 308-319). Springer International Publishing.
13. Suryamukhi K and Manish Singh. “On Exploiting Entity Interactions for Effective Content Routing” ***(Under Review)***