Chathuri Jayaweera

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INTERESTS

◇ **Natural Language Processing** ◇ **Explainable AI** ◇ **Machine Learning** ◇ **Data Science**

EDUCATION

University of Florida	*Gainesville, Florida*
Ph.D. in Computer Science	2022-Present
Department of Computer and Information Science and Engineering	
GPA: 3.66/4.0	

University of Moratuwa	*Moratuwa, Sri Lanka*
Honours Degree of Bachelor of the Science of Engineering	2015-2019
Specialisation: Electronic and Telecommunication Engineering	
Dean's Honour List in Semester 1, 2, 6, 7 and 8.	
GPA: 3.66/4.2 (3.63/4.0)	

DeepLearning.ai	*Coursera*
Neural Networks and Deep Learning	2019

PUBLICATIONS

- Chathuri Jayaweera, Sangpil Youm, and Bonnie J Dorr. AMREx: AMR for Explainable Fact Verification. In Proceedings of the Seventh Fact Extraction and VERification Workshop (FEVER), pages 234–244, Association for Computational Linguistics, 2024

- Sangpil Youm, Brodie Mather, Chathuri Jayaweera, Juliana Prada and Bonnie Dorr. DAHRS: Divergence-Aware Hallucination Remediated SRL Projection. In International Conference on Applications of Natural Language to Information Systems, pages 423-438, Springer, 2024.

- Manuel Nunez Martinez, Sonja Schmer-Galunder, Zoey Liu, Sangpil Youm, Chathuri Jayaweera, and Bonnie J. Dorr. Balancing Transparency and Accuracy: A Comparative Analysis of Rule-Based and Deep Learning Models in Political Bias Classification. In Proceedings of the Second Workshop on Social Influence in Conversations (SICon 2024), pages 102–115, Association for Computational Linguistics, 2024.

- Chathuri Jayaweera and Gihan Dias. Automatic Classification, Visualization and Analysis of Errors in Machine Translation. In Extended Abstracts of International Conference on Information and Automation for Sustainability (ICIAFS), pages 43-44. IEEE, 2021.

- Sutharsan, Mahendren, Shehan Rajakaruna, S. Y. Jayaweera, J. A. C. M. Jayaweera, and Subramaniam Thayaparan. Vision-Based Adaptive Traffic Light Controller for Single Intersection.In proceedings of the International Conference on Information Technology Research (ICITR), pages. 1-6. IEEE, 2020.

SELECTED PROJECTS

Textual Entailment Detection via AMR with Explainability (2024)

An Explainable pipeline for assessing textual entailment relationships using Abstract Meaning Representation (AMR) metrics.

Stack : Python, IBM transitioned-based AMR parser, Smatch, S^2match, SentenceBERT

Targeted Sentiment Analysis through Graph Neural Networks (2023)

Automatically identifying specific entities within text & determining the sentiment expressed towards them.

Stack : Python, SpaCy, Dependency trees, Graph Convolutional Networks, DistilBERT

Automatic Error Visualizing and Analyzing Tool (2021)

A tool for classification, visualization and frequency analysis of translation errors of a Machine Translation system.

Stack : Python, NLTK, Jupyter Notebook.

Improving Sinhala - English Machine Translation quality using Automatic Post Editing (APE) Techniques (2020)

Research on current APE techniques and implementation of a suitable APE system to improve Sinhala - English Machine Translation quality

Stack : OpenNMT-py, OpenNMT-tf, Pytorch, Transformer model architecture.

Customer recommender solution for banking domain (2018)

A customer recommender solution with a useful feature that enables the bank to describe customer behaviors and generate insight through them was designed and implemented using the customer transaction and demographic data available in a given bank database.

Stack : Python, PySpark, XGBoost, AWS virtual servers.

ACADEMIC EXPERIENCE

AUG 2022 - PRESENT	Graduate Research Assistant (Research grant: DARPA INCAS) *The Natural Language Research & Culture (NLP&C) Laboratory* *CISE, University of Florida*
AUG 2022 - PRESENT	Graduate Teaching Assistant *CAP4641, CAI6309 - Natural Language Processing* *CISE, University of Florida*
FEB 2020 - SEP 2021	Graduate Research Assistant (Research grant: AHEAD) *Natural Language Processing Center (NLPC)* *CSE, University of Moratuwa*
FEB 2020 - SEP 2021	Teaching Assistant *CSE, University of Moratuwa* CS2032 - Computer Communications CS3032 - Computer Networks

WORK EXPERIENCE

SEP 2021 - JUN 2022	Cognius.ai - AI Research Engineer Development of Intent Classification models for Conversational AI systems
JUNE - DEC 2018	Forestpin (Pvt.) Ltd. - Machine Learning Research Intern Building Sales Prediction models for Sales of supermarket outlets and implementing an Inventory management model

Skillset

Programming Languages:	Python | R | C++ | Java
Softwares :	Weka | Matlab
Familiar libraries and frameworks :	Pytorch | HuggingFace | XGBoost | Opennmt-py | Unity
Technical Skills :	Data Visualization, Preprocessing, Analysis and Modeling
Soft Skills :	Works well in team | Good at problem solving | Fast learner
Other :	LaTeX | Git | CSS | Flask

Awards & Achievements

2023:	CISE Graduate Student Scholarship, University of Florida
2015-2019:	Dean's Honour List for outstanding academic achievements in Semester 1, 2, 6, 7 and 8.
2015-2019:	Mahapola merit scholarship for outstanding performance in GCE Advanced Level by the government of Sri Lanka.
2018:	India's first Bank-led Datathon organized by Yes Bank, India - 1st runner up and Best Student team award
2018:	Hackstat 2018, a Datathon organized by the Stat Circle of University of Colombo - 1st Place
2014:	Sri Lankan Physics Olympiad Competition - Merit Award

Professional affiliations and activities

- IEEE WIE Member

- Institution of Engineers, Sri Lanka (IESL) member

- Rotaract club of University of Moratuwa (2016-2018)

References

Available upon request