Chathuri Jayaweera

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INTERESTS

⋄ **Data Science** ⋄ **Deep Learning** ⋄ **Natural Language Processing** ⋄ **Natural Language Understanding**
⋄ **Explainable AI** ⋄ **LLM** − **based Evaluation**

EDUCATION

University of Florida — *Gainesville, Florida*
Ph.D. in Computer Science, Advisor: Prof. Bonnie Dorr — *2022-Present*
Department of Computer and Information Science and Engineering

University of Moratuwa — *Moratuwa, Sri Lanka*
Honours Degree of Bachelor of Science in Engineering — *2015-2019*
Specialisation: Electronic and Telecommunication Engineering
Dean's Honour List in Semester 1, 2, 6, 7 and 8.

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

PUBLICATIONS

Peer-reviewed Publications

- Chathuri Jayaweera, Bonnie J. Dorr. From Disagreement to Understanding: The Case for Ambiguity Detection in NLI. In Proceedings of the 4th Workshop on Perspectivist Approaches to NLP (NLPerspectives), EMNLP 2025

- Chathuri Jayaweera, Sangpil Youm, and Bonnie J. Dorr. AMREx: AMR for Explainable Fact Verification. In Proceedings of the 7th Fact Extraction and VERification Workshop (FEVER), EMLNP 2024

- Sangpil Youm, Brodie Mather, Chathuri Jayaweera, Juliana Prada and Bonnie J. Dorr. DAHRS: Divergence-Aware Hallucination Remediated SRL Projection. In International Conference on Applications of Natural Language to Information Systems, 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 2nd Workshop on Social Influence in Conversations (SICon 2024), EMNLP 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), IEEE, 2021.

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

Manuscripts Under Review

- Chathuri Jayaweera, Brianna Yanqui, Bonnie J. Dorr. Filling the Gap: Is Commonsense Knowledge Generation useful for Natural Language Inference?. Annual Meeting of the Association for Computational Linguistics (ACL). Under-review. arXiv: 2507.15100, 2026

Preprints

- Chathuri Jayaweera and Bonnie J. Dorr. BLADE: Better Language Answers through Dialogue and Explanations. Preprint 2026

Work History

Aug 2022 Present	Graduate Research Assistant (Research grant: DARPA INCAS) *The Natural Language Research & Culture (NLP&C) Laboratory, CISE, University of Florida* Research ambiguity detection and resolution in Natural Language Inference (NLI), targeted entity extraction for sentiment and stance detection, and the development of explainable systems using foundation models, semantic and dependency representations, and graph neural networks (GNNs).
Aug 2022 Present	Graduate Teaching Assistant *CAP4641, CAI6309 - Natural Language Processing, CISE, University of Florida* Assist undergraduate students in course projects. Mentor graduate student teams in conducting NLP research, guide them in designing experimental pipelines, and collaborate on publications.
Sep 2021 Jun 2022	Cognius.ai - AI Research Engineer Fine-tuned language models for few-shot intent classification in conversational AI, trained models with minimal data, and generated synthetic data to improve intent classification efficiency.
Feb 2020 Sep 2021	Graduate Research Assistant (Research grant: AHEAD) *Natural Language Processing Center (NLPC), CSE, University of Moratuwa* Conducted research on enhancing Sinhala-English translation performance through post-processing techniques by identifying and addressing frequent error types in the translation process.
Jun 2018 Dec 2018	Forestpin (Pvt.) Ltd. - Machine Learning Research Intern Applied statistical modeling techniques to develop sales forecasting models and implemented inventory prediction algorithms, optimizing management and decision-making in supermarket outlets.

Selected Projects

BLADE: Better Language Answers through Dialogue and Explanations (2025)

Conducted research study on the impact of using a knowledge-grounded conversational assistant on student performance in an undergraduate-level course.

Stack: RAG-based conversation assitant, Python

LLMs as Commonsense Knowledge generators for Natural Language Inference (NLI) (2025)

Evaluated LLMs as commonsense knowledge sources by generating axioms for NLI predictions on SNLI and ANLI datasets. Implemented an LLM-as-judge framework to scale evaluation and assess axiom factuality.

Stack: Llama-3.1-70B-Instruct, Clause-3.5-Sonnet, Python

Fact Verification via AMR with Explainability (2024)

Developed an explainable fact verification pipeline using AMR graphs to assess meaning containment between claim and evidence. Combined AMR evaluation metrics with cosine similarity and provided post-hoc graph alignments for prediction interpretability.

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

Targeted Sentiment Analysis through Convolutional Networks (2023)

Developed a GCN-based entity recognition system combining dependency parsing, rule-based features, and token embeddings for node classification. Integrated the model into a targeted sentiment analysis pipeline and evaluated on SemEval 2014 ABSA dataset.

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

Automatic Error Visualizing and Analyzing Tool (2021)

Developed a tool for the classification, visualization, and frequency analysis of translation errors in Sinhala-English Machine Translation systems. The tool identifies frequent translation errors to enhance system performance.

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, LSTM, Transformer-Based Models.

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.

OPEN-SOURCE CONTRIBUTIONS

Project Aya by Cohere for AI

Contributed to help developing instruction-style datasets for Sinhala, a low-resourced language, as part of their initiative to create a massively multilingual LLM supporting under-represented languages.

Fine-tuning BERT and DistilBERT models in HuggingFace

Fine-tuned two BERT-base-uncased models for analyzing political discourse and Abstract Meaning Representation (AMR) sequence processing

SKILLSET

Programming Languages:	Python | R | C++
Softwares :	Matlab | Weka
Machine Learning Frameworks:	Pytorch | HuggingFace | Opennmt-py
NLP Tools:	Chroma | Faiss | Spacy | NLTK | XGBoost | Transformers
Technical Skills :	LLM-based Evaluation, Data Visualization, Preprocessing, Analysis and Modeling, R&D, Conversational AI
Soft Skills :	Collaborative Work | Problem-Solving | Self-Starter | Research Communication
Other :	Git | CSS | Flask | LaTex | AMR graphs

AWARDS & ACHIEVEMENTS

2023:	CISE Scholarship Award, Gartner Group Graduate Fellowship for excellence in publication record, 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

REFERENCES

Available upon request