# Chathuri Jayaweera

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#### **INTERESTS**

## ♦ Natural Language Processing ♦ Machine Learning ♦ Explainable AI ♦ Data Science

#### **EDUCATION**

University of Florida

Gainesville, Florida

Ph.D. in Computer Science

2022-Present

Department of Computer and Information Science and Engineering

GPA: 3.83/4.0

University of Moratuwa

Moratuwa, Sri Lanka

Honours Degree of Bachelor of the Science of Engineering Specialisation: Electronic and Telecommunication Engineering

2015-2019

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

## **SELECTED PROJECTS**

#### **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.

## Traffic light control system with Reinforcement learning 2019-2020

Implementing a reinforcement learning agent to return adaptive traffic light time settings according to the existing traffic level.

Stack: Python, Tensorflow, SUMO traffic simulator, Q-Learning.

#### 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.

#### Prediction model for customer check-ins for Hotel management 2018

Implementing a prediction model to predict the number of possible customer check-ins for a given day was designed and implemented to be used as a tool in hotel management processes.

Stack: Python, Microsoft Azure, XGBoost.

#### **PUBLICATIONS**

• 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.

#### **ACADEMIC EXPERIENCE**

AUG - DEC 2022
JAN - APR 2023
Department Of Computer and Information Science and Engineering, University of Florida

Graduate Research Assistant (Research grant: AHEAD)
Natural Language Processing Center (NLPC)
Department Of Computer Science and Engineering, University of Moratuwa
Natural Language Processing

FEB 2020 - SEP 2021
Teaching Assistant
Department Of Computer Science and Engineering, University of Moratuwa
CS2032 - Computer Communications
CS3032 - Computer Networks

#### **WORK EXPERIENCE**

Cognius.ai

Al Research Engineer

Development of Intent Classification models for Conversational Al systems

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 | SQL | Java

Softwares: Weka | Matlab | SUMO

Familiar libraries and frameworks: Pytorch | XGBoost | Opennmt-py | Opennmt-tf | Unity

Technical Skills: Data Visualization, Preprocessing, Analysis and Modeling Soft Skills: Works well in team | Good at problem solving | Fast learner

Other: LTFX | Git | CSS | Flask | SolidWorks

#### **AWARDS & ACHIEVEMENTS**

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

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.

2014: Sri Lankan Physics Olimpiad 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)