YASAS SENARATH

Doctoral Student / Graduate Research Assistant

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INTERESTS

Information Extraction, Explainable Artificial Intelligence, Data Science, Applied Machine Learning, Natural Language Understanding

EDUCATION

Volgenau School of Engineering Aug. 2019 Present
George Mason University, United States *CGPA: 3.95/4.0*

· PhD Student (Information Technology)
· Lab: Humanitarian, Semantics and Informatics Lab

Department of Computer Science and Engineering Jan. 2014 Jan. 2018
University of Moratuwa, Sri Lanka *Overall GPA: 3.95/4.20*

· B.Sc. Eng. (Hons.) - Honours Degree of Bachelor of Science of Engineering
· Enlisted in Dean's List in All Semesters in the Department of Computer Science and Engineering

EXPERIENCE

Graduate Research Assistant Aug. 2019 - Present
Humanitarian, Semantics and Informatics Lab (Human-Info-Lab) *George Mason University, US*

· Analyze Natural and Societal Crises in Social Media.
· Hate Speech Identification - Research Focus: Using Knowledge Bases for Designing Generalized Models.

Graduate Research Assistant Jan. 2018 - Jul. 2019
Data Science, Engineering and Analytics Research Hub (DataSEARCH) University of Moratuwa, LK

· Researched on fine grained emotion analysis of Tweets
· Designed and developed novel deep learning model for implicit emotion classification i.e. identification of emotions in text documents when the words indicating the emotion are absent
· Attained rank 8th out of 30 participants in Implicit Emotion Shared Task at WASSA-2018 while outperforming the baseline by 8%.

Visiting Instructor Jan. 2018 - Jul. 2019
Department of Computer Science and Engineering *University of Moratuwa, LK*

· Visiting Instructor of Subjects: Machine Learning, Data Science, Advanced Algorithms, Data Structures and Algorithms, Object Oriented Programming, Presentation Skills

Trainee Software Engineer Jul. 2016 - Dec. 2016
Undergraduate Internship *CodeGen International (PVT) Ltd., LK*

· Opinion and Entity Extraction from Reviews Related to Tourist Attractions.

PUBLICATIONS

Emergency Incident Detection from Crowdsourced Waze Data using Bayesian Information Fusion

Y Senarath, S Nannapaneni, H Purohit, A Dubey

IEEE/WIC/ACM International Joint Conference On Web Intelligence And Intelligent Agent Technology (WI-IAT '20) 2020

· Principled computational framework based on Bayesian theory to model the uncertainty in the reliability of crowd-generated reports and their integration across space and time to detect traffic accidents.

Evaluating Semantic Feature Representations to Efficiently Detect Hate Intent on Social Media

Y Senarath, H Purohit

IEEE International Conference on Semantic Computing (IEEE-ICSC) 2020

· Novel empirical study of diverse semantic features for hate speech classification task on social media posts.

ACTSEA: annotated corpus for Tamil Sinhala emotion analysis

R Jenarthanan, **Y Senarath**, U Thayasivam

Moratuwa Engineering Research Conference (MERCon) 2019

· Scalable semi-automatic approach to create an annotated corpus for low-resource languages for emotion analysis.

A Hybrid Approach for Aspect Extraction from Customer Reviews

Y Senarath, N Jihan, S Ranathunga

International Journal on Advances in ICT for Emerging Regions 2019

· Novel mixture of classifiers approach for aspect extraction, combining an improved CNN with an SVM.

DataSEARCH at IEST 2018: Multiple Word Embedding based Models for Implicit Emotion Classification of Tweets with Deep Learning

Y Senarath, U Thayasivam

Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis (WASSA) 2018

· Presents a Novel Deep Learning Model for Implicit Emotion Identification.

Aspect Extraction from Customer Reviews Using Convolutional Neural Networks

N Jihan, **Y Senarath**, S Ranathunga

International Conference of Advances in ICT for Emerging Regions (ICTer) 2018

· Presents a Multi-Channel Convolutional Neural Network for Aspect Category Detection in Aspect Based Sentiment Analysis.

Multi-Domain Aspect Extraction using Support Vector Machines

N Jihan, **Y Senarath**, D Tennekoon, M Wickramarathne, S Ranathunga

Conference on Computational Linguistics and Speech Processing (ROCLING) 2017

· Presents an Aspect Extraction Technique Based on Support Vector Machines and a set of Novel Features.

Online-computer-mediated interviews and observations: Overcoming challenges and establishing best practices in a human-AI teaming context

K K Stephens, K Nader, A G Harris, C Montagnolo, A L Hughes, S A Jarvis, **Y Senarath**, H Purohit
The Hawaii International Conference on System Sciences (HICSS) *2021*

· A guidance in how to interact with participants when conducting fully mediated research with screen-sharing and video.

HONORS AND AWARDS

CINTEC Award 2018

· Awarded for the undergraduate with the highest grade for the Final Year Project at Department of Computer Science and Engineering , University of Moratuwa, Sri Lanka.

Gold Award for Most Outstanding Digital Communication Project 2018

· Awarded by Rotaract District 3220 Sri Lanka & Maldives at the 28th Rotaract District Assembly held on 08/07/2018 for the Community project TrainLK.