Omar Sharif

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OVERVIEW

Ph.D. student in computer science at Old Dominion University. Interested in Machine Learning (Deep Learning) and Data Science applications. An enthusiast in research and implementation also eager to learn and employ new techniques with good communication, teamwork, and problem-solving skills.

EDUCATION

Ph.D. in Computer Science
Old Dominion University, Norfolk, Virginia, USA

January 2022 - Present

Ph.D. in Computer Science
Wayne State University, Detroit, Michigan, USA

September 2020 - Transferred

Master of Science in Computer Science August 2018 - August 2020 University of South Dakota, Vermillion, South Dakota, USA

Master of Science in Computer Science September 2016 - December 2017 American International University- Bangladesh, Dhaka, Bangladesh

Bachelor of Science in Computer Science and Engineering May 2010 - April 2015 American International University- Bangladesh, Dhaka, Bangladesh

SKILLS

Languages & Software:

 Python (With knowledge of Numpy, Sci-kit-learn, Pandas, Matplotlib, OpenCV, Tensorflow(Keras))

 JAVA (Basic knowledge of OOP concepts)

 C# (Entity Framework, WPF Applications, .NET MVC)

 MySQL (Basic Knowledge)

 Basic knowledge of software development life cycle such as – Agile, and Scrum.

 Basic knowledge of web development (HTML, CSS, and JavaScript)

EXPERIENCE

Ph.D. Researcher, Department of Computer Science January 2022 - Present Old Dominion University, Norfolk, Virginia

- Blood Glucose Prediction using Continuous Glucose Monitoring data
- Deep Learning approaches to address the class imbalance of tabular datasets
- Exploration of Neural Ordinary Differential Equations and its recent developments

Graduate Teaching Assistant, Department of Computer Science January 2022 - Present

Old Dominion University, Norfolk, Virginia

- Lab instructor of JAVA/C++ based problem-solving with programming courses.
- Instruct and help students learn programming concepts and demonstrate code examples.

Graduate Research Assistant, Department of Computer Science September 2020-May 2021

Wayne State University, Detroit, Michigan

• Project on cancer classification on nuclei features from histopathological images

Graduate Teaching Assistant, Department of Computer Science May 2021- Aug 2021

Wayne State University, Detroit, Michigan

- Instructed data structure lab course
- Help students implement data structures such as binary trees, hash tables, stacks, and queues.

Graduate Assistant, Department of Computer Science August 2018- December 2019 University of South Dakota, Vermillion, South Dakota

- Worked with Parallax Activity Bot 360 (maze solving, parking)
- Worked with E-Z Robot named JD. Performed several tasks like face detection, speech recognition, Cognitive Vision

EXPERTISE

Publication

2024

"SAWTab: Smoothed Adaptive Weighting for Tabular Data in Semi-Supervised Learning" Published in Pacific Asia Conference on Knowledge Discovery and Data Mining(PAKDD) 2024

https://doi.org/10.1007/978-981-97-2259-4_24

Publication

2017

"A Literature Review on Emotion Recognition using various methods." Published in Global Journal of Computer Science and Technology.

 $\label{local-computer} $$ https://computerresearch.org/index.php/computer/article/view/1507/0. Blood \ Glucose \ Prediction \ using \ Continuous \ Glucose \ Monitoring \ data \ ongoing$

• Exploration of the state-of-the-art deep learning models on blood glucose prediction of diabetes patients and analysis the challenges of recent approaches.

Research on Deep Learning approaches to address class imbalance on tabular dataset. January 2023

• Explore and study the state-of-the-art deep learning models related to class imbalance and analyze the challenges of applying such models to tabular datasets.

Project on Feature Extraction to analyze lung symmetry for pulmonary abnormality detection.

August 2019

 Analysis and comparison of image processing and deep learning models of feature extraction and matching to detect similarities within both lungs for diseases.

Project on cancer classification on nuclei features from histopathological images. September 2020

• Extracting features of the nuclei from the TCGA dataset and analyzing the performance of different machine learning algorithms on the dataset

Machine Learning Project

December 2020

• Performance analysis of several machine learning approaches after preprocessing and feature engineering of credit card fraud dataset and using performance matrices to observe the benchmark of machine learning models.

ACTIVITIES

Poster on Overview of Neural Ordinary Differential Equations October 2022 Computer Science Graduate Program Event at Old Dominion University

Poster and Presentation Understanding X-rays Using Key points February 2020 Data Science Symposium at South Dakota State University

Poster and Presentation on Deep Learning on Satellite Imaging: progress and scopes April 2019

Idea Fest at the University of South Dakota

Association of Computing Machinery (ACM)

2018-2020, 2022-

Secretary, Computer Science Graduate Society(CSGS), ODU

2022-

AWARDS AND HONORS

Graduate Research and Creative Scholarship Grant (Fall 2019)