Harshit Agarwal

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Education

Master of Computer Science | May 2023 | Dalhousie University
· GPA: 4.2/4.3
· Related coursework: Research Methods and Statistics, Natural Language Processing, Machine Learning, Process of Data Science

Bachelor Of Computer Engineering | May 2020 | Gujarat Technological University
· GPA: 8.75/10

Skills

· Programming Languages: **Python**
· Artificial Intelligence: **TensorFlow, Keras, PyTorch, Scikit Learn, Matplotlib, Pandas, NumPy, OpenCV, NLTK, Neural Networks, Exploratory Data Analysis**
· Cloud: **AWS EC2, AWS SageMaker, S3 Storage**
· Web Technology: **HTML5, CSS3, Flask, Streamlit, Dash Framework**

Experience

Teaching Assistant | Dalhousie University | Jan 2023 – April 2023
· Teaching Assistant for CPST 1203: Technical Communication II where I conduct tutorials, mark assignments, and help students with coursework.

Research Assistant | Dalhousie University | Feb 2022 - Present
· Assisting in the research project related to initiating the evaluation of services to promote resilience and mental health among families of children with disabilities under Prof. (Dr.) Parisa Ghanouni.

Consultant, Part Time | AlphaSights | August 2021 - Present
· Consulting AlphaSights's client on Privacy Engineering, Machine Learning and Deep Learning solutions.

Data Scientist| UnMazer.ai | June 2021 – Dec 2021
· Performed insightful geolocation data analysis and synthetic data generation for user-specific GPS location data.

Team Leader – Learning Management System | Ignitus | March 2021 – June 2021
· Developed e-learning contents and software modules backing the Ignitus Learning Management System to be offered to the University of Michigan students.

Research Assistant | Sarvajanik College Of Engineering And Technology | Jan 2020 – May 2020
· Assisting in the research project related to Music Analysis and Generation using GAN under Prof. (Dr.) Keyur Rana.

Volunteer Experience

Let's Talk Science | April 2022 - Present
· Volunteered as a STEM Educator, delivering engaging and impactful learning experiences to students and community members to encourage them to pursue careers in STEM fields.

Disha NGO | May 2019 – June 2019
· Engaged in helping Autistic and other special children, Surat, 2016

Publications
· **"Sentimental Analysis of News Headlines for Stock Market"**, IEEE International Conference for Innovation in Technology 2020.
· **"Analysis and Prediction of Stock Market Trends using Deep Learning"**, Proceedings of First International Conference on Computing, Communications, and Cyber-Security 2019.
· "**A Neural Network Based Approach for Operating System**", Innovative Data Communication Technologies and Application 2019.
· "**Analysis of Process Scheduling Using Neural Net In Operating System**", Inventive Communication and Computational Technologies 2019.

Projects

Common N-Gram Method: A Promising Approach to Detecting Mental Health Illness on Social Media | Jan 2022 – Ongoing
· This thesis research is being done under Prof. (Dr.) Vlado Keselj.
· Implemented a novel Common N-gram Method to predict mental illness from social media posts.
· Compared the performance of the Common N-gram Method to state-of-the-art deep learning models such as CNN-LSTM.
· Employed Relative N-gram signature and word embedding techniques to interpret model learning.

Mood Classification of Songs Using Lyrics And Audio Features | April 2022
· Conducted an experiment to compare the suitability of audio and lyrics for mood classification.
· Utilized Bi-directional LSTM and SVM techniques to analyse lyrics of songs.
· Results showed that the SVM model performed significantly better than other models, and audio features were more effective in predicting musical track emotions compared to lyrics.

Analysis And Prediction Of Stock Market Trends | April 2020
· Utilized Recurrent Neural Network to predict stock values (open, close, high, low) with an accuracy of 93%.
· Implemented Support Vector Machine and Naive Bayes for sentimental analysis of news headlines to forecast stock price trend and employed K-Means clustering to group similar stocks.