Nidhi Davawala

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Education

University of Massachusetts Amherst *Expected grad: May'21
Masters in Computer Science
Coursework: Neural Networks, Algorithms & Systems for Data Science, Natural Language Processing, Information Retrieval**

Dhirubhai Ambani Institute of Information and Communication Technology, India Aug'15-May'19
B.Tech in Information and Communication Technology (ICT) GPA: 8.14/10.0
Coursework: Data Structures & Algorithms, Database Management System, Software Engineering, Operating Systems

EXPERIENCE

Summer Technology Analyst, Goldman Sachs New York Ongoing

- Working on the Enterprise Health Restoration Services for alert management.
- Generating interpretable user manuals from JSON workflows and integrating it across the system heath check platform.

Research Intern, Indian Space Research Organization (ISRO) May'18-Jul'18

- Implemented Wishart image classification of agricultural lands on RADARSAT-2 Synthetic Aperture Radar Data.
- Generated change map using hypothesis testing to identify the areas with significant changes over a period of time.

Publication

Change Detection Of Polarimetric SAR Data For Monitoring Of Agricultural Areas ISPRS'18
*N. Varia, **N. Davawala**, S. Chirakkal, D. Haldar, R.Ghosh, D. Putrevu* *Link to paper*

Projects

Mini Search Engine Implementation

- Implemented a mini-search engine capable of handling HTTP query requests to retrieve webpages from keywords.
- Used Hadoop File Systems to store the files and corresponding URLs; Apache Spark for generating inverted index.
- Answered queries by retrieving the corresponding files stored as key-value pairs on RocksDB.

Data Visualization: Mental health in Tech

- Developed an interactive Bootstrap website for multi-view D3 visualizations of OSMI Mental Health in Tech surveys
- Performed data analysis on 3 years surveys to understand the changing trends of employee mental health in IT industry.
- Gained insights on the spread of mental disorders, evaluated the support system and made suggestions to improve it

Background modeling for foreground detection in video surveillance

- Developed a mechanism for automatic background subtraction to identify the moving objects in a video
- Generated a basis vector of background using Principal Component Analysis and Locality Preserving Projection
- Subtracted the modelled background from the test video to detect the foreground with 97.7% accuracy.

Breast Cancer Prediction

- Performed a 2 class supervised classification on real valued features of a cell nucleus
- Implemented algorithms of Logistic Regression, Decision Tree Model and Random Forest for classification

Technical Skills

- **Languages:** C/C++, Java, Python, PostgreSQL, MATLAB, HTML, TensorFlow
- **Certifications:** Neural Networks (NTU Singapore), AI-Search Methods for Problem Solving (IIT Madras)

Leaderships and Achievements

- Chairperson, **Women in Engineering** (WIE) Affinity Group of IEEE Student Branch, DA-IICT (2018)
- Recipient of **Scholarship for Higher Education** (SHE) by the Dept. of Science and Technology, Govt of India (2014)