SHAHIL MANOJ DHOTRE

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OBJECTIVE

An electrical engineer proficient in Machine Learning and Data Science is currently looking for a summer internship to gain practical skills and real-world experience.

EDUCATION

North Carolina State University - Raleigh, NC, USA **GPA 4/4** | *August 2022 - May 2024*

Degree: Masters in Electrical Engineering

- Coursework: Random/Stochastic Process, Digital Imaging System, Topics in Data Science, Neural Networks & Deep Learning, Automated Learning & Data Analysis, Database Management Concept & Systems

Veermata Jijabai Technological Institute - Mumbai, India **GPA 7.7/10** | *August 2016 - September 2020*

Degree: Bachelor of Technology in Electronics Engineering

- Coursework: Probability and Statistics, Neural Networks and Fuzzy Logic, Project Management

SKILLS

Languages: Python, MySQL, C++, MATLAB

Frameworks/Libraries: PyTorch, TensorFlow, NLTK, Numpy, Scipy, Matplotlib, Scikit-Learn, Pandas, OpenCV

Skills: Machine Learning, Deep Learning, Prediction & Forecasting, Supervised & Unsupervised Learning, Data Analysis, Data Structures & Algorithms, Statistical & Time Series Algorithms, GitHub

EXPERIENCE

ElasticRun *January 2021 - June 2022*

Engineer-Data Science Department| ETS, SARIMA, Convolutional Neural Networks, Keras

- Developed and tested the forecasting tool to predict sales with an accuracy of 70% - 80% at several levels and periodicity using Time Series Algorithms and Deep Learning
- Migrated and optimized the forecasting system from the existing Kubernetes server to the Azure platform for fast and serverless training
- Created and visualized weekly reports according to the requirement of each department using MetaBase and MySQL

ElasticRun *October 2020 - December 2020*

Corp Tech Intern-Data Science Department| Unsupervised learning, SQL

- Developed the Hard-Clustering technique to distinguish between wholesale and retail in B2B with an accuracy of 90%
- Conducted analysis, generated insights, and visualizations on datasets employing MySQL and MetaBase for understanding the pattern of FMCG sales in Satara District of Maharashtra, India

PROJECTS

Movie Recommendation System | *Python and Keras* **NC State University**

- Deployed Matrix Factorization-based recommending system using Keras to recommend movies to the users
- Implemented User Item-based collaborative filtering to generate embedding for all users and all items based on the user-item rating on the 25M MovieLens dataset.

Crop Yield Prediction | *Python, ANN, Regression models, PyTorch* **NC State University**

- Deployed a regression model to predict the yield of the crop in The United States of America
- Implemented 5 regression models such as Multivariate, Decision Tree, Shrinkage, KNN, and Artificial Neural Network
- Based on analysis of multiple metrics, the Decision Tree performed well and provided an accuracy of 82%

Convergence of Random Variables | *Matlab, App Designer (Matlab)* **NC State University**

- Implented simulation, transformation and convergence of Random Variables through Matlab Routines and Rejection Method
- Designed the Graphical Simulation of the convergence using App Designer (Matlab)

Deep and Dark Web Crawler | *Python, MySQL, TensorFlow, Keras, and TOR* **VJTI**

- Proposed a pseudonymous way of extracting abusive content related to women and child abuse on the web using an ANN-based focused crawling framework under the Center of Excellence (COE), VJTI
- Extracting Data from the sites of the surface web, deep web, and dark web and Implemented Naive Bayes, SVM, ANN models to detect the genre of the sites
- Authored and published a paper titled "CrawlBot: A Domain-Specific Pseudonymous Crawler" at International Conference on Cybersecurity in Emerging Digital Era in August 2021

Data Retrieval System | *Web Scraping, BeautifulSoup, NLTK, Lemmatization* **VJTI**

- Scraping Web to collect data and process the scraped data using NLTK and Lemmatization
- Visualizing the processed data using WordCloud based on TF-IDF scores