

# SHRADDHA PATTANSHETTI

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## EDUCATION

**RUTGERS UNIVERSITY**, New Brunswick, NJ - MS in Computer Science (Minor in Machine Learning) GPA: 4/4 2022-2024  
**SHIVAJI UNIVERSITY**, Maharashtra, India – B. Tech in Information Technology, CGPA: 8.87/10 2016-2020

## PROJECTS

**AUTOMATING CRPYTO WEBSITE API PULL USING PYTHON** Feb 2023

- The API used in this project is CoinMarketCap. The steps involved are normalizing API JSON format to dataframe, Automating the data pull into CSV, Data cleaning and transformation, and Data visualization using Matplotlib and seaborn. **Tools used-** Python, Matplotlib, Anaconda Jupyter Notebook, Pandas, OS library.

**WEBSCRAPING ESPN CRICINFO FOR DATA ANALYSIS** Dec 2022

- ESPN website is being used for webscraping. The steps involved are Data collection, Cleaning and Transformation, Data transformation in power query, Data modeling and building parameters using DAX, and creating Dashboards in PowerBi. **Tools used-** Python, Pandas, Numpy, DAX, Powerbi, Excel, Anaconda Jupyter Notebook, JSON.

**FIRE AND SMOKE RECOGNITION USING DEEP LEARNING** Apr 2020

- Project uses a forest fire dataset to perform the classification. The steps involved are Data Preprocessing, Augmentation, creating a Convolutional Neural Network (CNN) with RELU and Sigmoid activation functions having two hidden layers having 30 million parameters, Training and Validating the dataset using Adam optimizer, and training the data set. The training and testing accuracy of the model is 98% and 99% after 100 epochs. **Tools used-** Python, Tensorflow, Keras, Matplotlib, Python Imaging Library, CUDA, Anaconda Jupyter Notebook

**AUDIO CLASSIFICATION USING DEEP LEARNING** Dec 2019

- Project is implemented using an urban sound dataset. The steps involved are EDA, Data Preprocessing (Extracting features using Mel-Frequency Cepstral Coefficients), Dividing the dataset into training and testing, and creating a model using an Artificial Neural Network (ANN). The Validation accuracy of the ANN model is 80%. **Tools used-** Python, Tensorflow, Keras, Matplotlib, Anaconda Jupyter Notebook, SciPy, Pandas, tqdm and OS library, Numpy, sklearn.

## WORK EXPERIENCE

**RUTGERS UNIVERSITY** – Research Assistant NJ, USA, Feb 2022 – Present

- Working on the implementation of the paper “Machine Learning Modeling of Superconducting Critical Temperature” in Phy and Astronomy dept

**CAPGEMINI** – Software Engineer Pune, India, Nov 2020 – Aug 2022

- Worked on creating Maps, sending, and retrieving data from **CICS** maps using **Cobol** and integrated **CICS-Cobol-DB2**.
- Designed **JCL** for running various jobs and worked on the Analysis of **Cobol** code, making changes to the code, and implementing the requirements. Worked for HSBC in the information services team. Generated End of day and intra-day reports based on customer requirements using **DB2** tables. Prepared **impact analysis and technical design documents** for changes and enhancements proposed in the system. Prepared data in **Microsoft Excel sheet** and was fed as input to the “**Bread**,” an analysis tool that generates reports used by HSBC. Undertook knowledge transfer sessions for freshers. Awarded as a Star performer 3 times while working with HSBC clients.

**AIROBOSOFT PRODUCTS AND SERVICES** - Machine learning and Automation Intern Remote, Sep 2020 – Nov 2020

- Worked on the projects **Image to pencil sketch using OpenCV**, **Stock market prediction using LSTM**, **Prediction using supervised algorithms**, and **EDA**. Created a storyboard showing the spread of Covid-19 using **Tableau**.
- Created a hybrid model for stock price/performance prediction using **numerical analysis** of the historical stock price from finance.yahoo.com

**TECHNEX IIT (BHU)** - Data analytics and Machine Learning Intern Remote, Jul 2020 – Sep 2020

- Worked on the case study, **Text classifier model for emotion detection** using **Python and Streamlit**. The steps involved were **Data Preparation and preprocessing (NeatText, Pandas, sk-learn)**, Building a model/pipeline (Naïve Bayes and Logistic Regression), and productionizing the model using Streamlit

## SKILLS

- Programming and Databases: Python, C, R, MySQL, DB2, Postgres SQL, Microsoft SQL server
- Data Science and Analytics: Classification, Regression, Time Series and Forecasting, Statistical Analysis, ETL, EDA, Data Collection, Cleansing, Wrangling, Visualizations, Modeling, Interpretation, Tableau, Excel, Powerpoint, PowerBI, Web Scraping
- Libraries and Frameworks: Pandas, NumPy, Seaborn, Matplotlib, Scikit-Learn, TensorFlow, SciPy, Keras, Py Torch.
- Tools: AWS, Jupyter, Anaconda, GitHub, SAS, Google Colab, Powershell, SPSS, Matlab, Jira
- Certifications: Neural Networks and Deep Learning by Deeplearning.ai, Applied machine learning in python by the University of Michigan, Matlab onramp by MathWorks, Google Data Analytics Professional, Data Analysis with Python by Coursera

## PUBLICATIONS

**Real-Time Object Detection with Pre-eminent Speed and Precision using YOLOv4** Jul 2021

- International Journal of Research in Engineering, Science and Management (Volume 4, Issue 7)

**Extensive Study: Performance, Metrics, and Usability of Chatbot** Sep 2021

- International Research Journal of Engineering and Technology (Volume 8, Issue 9)