

Rashmi Agrawal

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EDUCATION

- 1. Advance AI and ML Training at Learnbay** January 2023-September 2023
- 2. Govt. College of Engineering – Pune, Maharashtra** August 2017-May 2019
Masters of Technology, Signal Processing (E&TC)
- 3. GATE 2017 Qualified**
- 4. K.K. Wagh Institute of Engineering Education & Research** August 2012- May 2016
Bachelor of Engineering (E&TC)

SKILLS SUMMARY

- Languages: SQL, Python, R, NoSQL ,MATLAB, C, C++
- Machine Learning: Regression (Linear, Non-linear), Clustering, SVM, Decision Tree, KNN, EDA, Feature engineering, Deep Learning, NLP.
- Statistics: Hypothesis Testing, Outlier analysis.
- BI Tools: Excel, Tableau, PowerBI

ACADEMIC EXPERIENCE

SSVPS's Bapusaheb Deore college of Engineering, Dhule
Assistant Professor

December 2024- Present

- Contributed in teaching undergraduate courses and conducting their respective laboratory sessions in electronics engineering.
- Advised and mentored electronics engineering students related to academics as well as other technical skills.

Workshops and conferences:

- One-day workshop on 'AI Tools for Educators' conducted by Department of computer engineering, SSVPS Dhule on February 20, 2025
- One – week STC on 'AI and cloud based Tools for Research' conducted by NITTTR, Chandigarh on March 24, 2025

Govt. College of Engineering, Pune

August 2017 - May 2019

- Assisted in teaching undergraduate courses in Signal Processing and Machine Learning.
- Conducted laboratory sessions and helped students with project work and assignments.
- Developed course materials and evaluated student performance.

PROFESSIONAL EXPERIENCE

Intellirich Devsoft Pvt. Ltd.

Machine Learning Engineer

Jan 2020 – Dec 2020

- Performed Webscraping for data collection using beautiful soup and automated processes for Demat accounts using selenium such as automatic login process or placement of orders using trading strategies by writing utility scripts in python.
- Performed Data cleaning, Feature selection, Hyper-parameter fine-tuning, Dimension reduction using PCA using R for converting stock market data into useful insights for future price predictions.
- Build SVM, Random Forest models for stock predictions and compared their performances.
- Back-Tested by doing a grid search to get the optimum hyper-parameter values and wrote the utility scripts.
- Worked on a computer vision project to detect number of windows and doors from house images using yolov3 model and OpenCV in python to recommend products to the customer. Data annotation was done using Labellmg.

PROJECTS

Provide Insights to the Revenue Team in the Hospitality Domain:

- Objective: Created a dashboard for the revenue team of the hotel chain to provide insights for taking future business decisions to regain market share and revenue.
- Tools: Excel, PowerBI

- Outcome: Imported, transformed data in Power Query. Data modelling, Identifying & creating measures using DAX. Created a dashboard to show trends & comparisons in measures using appropriate visualization.

Webscraping and NLP Project:

- Objective: Webscraping article data and perform feature engineering.
- Tools & techniques: Beautiful soup, NLTK in python
- Outcome: Article data (pure text) and title extracted using beautiful soup from all the urls from a website's article pages after cleaning the stopwords and using the reference positive, negative words list to generate 13 features using NLTK python library.

Person Tracking & labelling, social distance alert and mask/no-mask detection:

- Objective:
 1. To detect and label id to people entering the area.
 2. To alert when social distancing norms not obeyed.
 3. To detect whether the person is wearing mask or not.
- Tools & techniques: tensorflow library, DNN
- Outcome: Tested on self recorded videos with multiple people entering a specific area who are first detected and labelled with respective IDs in order of entry. If distance between them is less as per rules immediately

M.Tech. Thesis

"Audio Environment Identification"

- Objective: To classify the given audio recording into environment in which it has been recorded.
- Tools & techniques: MATLAB, SVM pair wise classification
- Outcome: Data collection, Data cleaning and extraction of reverberant component from the audio recordings data and generation of reverberation-based features such as MFCCs, GFCCs and reverberation time to identify the environment in which the audio was recorded using SVM algorithm.

PUBLICATIONS

IEEE Publication

"Audio Environment Identification"

R. Patil, R. K. Patole and P. P. Rege, "Audio Environment Identification," 2019 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT), 2019, pp. 1-5, doi:

10.1109/ICCCNT45670.2019.8944427.

<https://ieeexplore.ieee.org/document/8944427>

CERTIFICATION

1. IBM Advance AI and ML Certification

