

# Zafar Mahmood Waris

Data Scientist | Software Engineer

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Location: Darbhanga, Bihar, India

## WORK EXPERIENCE

### Graduate Engineer Trainee Endurance Technologies Pvt. Ltd

08/2020 - 03/2021

Tags: Auto Gauging Machine, VMC, Report Preparation, Auditing

- Performed gauging operation on auto gauging machine and inspection table and report to plant head if any discrepancy found
- Prepared total production reports on the given shift and maintained paperwork for further audit.
- Checked for any discrepancy in the reports and tried to keep it to a minimum

### CAE Engineer Simulation Lab

07/2022 - 09/2022

Tags: Electric Vehicles BTMS, Ansys Workbench, Ansys Fluent

- Performed daily tests on Battery Thermal Management System of Electric Vehicle using a cooling fluid
- Applied and tested the BTMS on various cooler temperature to analyse the rise and fall in temperature of the cooling fluid after passing through the battery surface

## PROJECTS

### Health prediction app with chatbot using NLP and deployment(Ongoing)

### Customer Segmentation using K-means

Tags: K-means, Unsupervised learning, Silhouette and elbow score

- Built a clustering model using **K-means** to identify major customer segments on transaction dataset.
- Obtained optimal number of clusters using **Silhouette score**, **elbow score** and visual inspection of Dendrogram resulting from Hierarchical Clustering.
- Generated optimal customer clusters which could be further used in various use cases like customer targeting, marketing campaigns, etc.

### Live Emotion Detection using Webcam

Tags: Deep Learning, Computer Vision, Image Preprocessing, OpenCV

- Built an app that detects emotion from live feed through webcam and provide real-time aggregated feedback about the person.
- Employed Image Data Generator to built train and test dataset of images.
- Built a neural network using **CNN** from scratch for feature processing.
- Used different optimizers such as **Adam**, **RMSProp** and **SGD** and built the final model with Adam with highest accuracy.
- Employed **early stopping** to reduce computation time once an optimized model is produced.
- Used **OpenCV** library to provide live feed through the webcam to the emotion detection app.

## TECHNICAL STACK

- Data Science/Machine Learning/Deep Learning**  
Python, Data Preprocessing, Data Visualization, Supervised Learning algo, Unsupervised Learning algo, ANN, CNN, RNN, EDA, Feature Engineering
- Languages**  
Python, SQL, NoSQL, HTML, CSS, JavaScript(Basics)
- Software Frameworks and Libraries**  
Numpy, Pandas, Scikit-Learn, Matplotlib, Seaborn, Tensorflow, Keras, Django, OpenCV, NLTK, Hugging Face, BeautifulSoup, Scipy
- Tools and Platforms**  
Power BI, Jupyter, Glt, Colab, Kaggle, Netlify, Git, AWS, Docker
- Mathematics for ML and DL**  
Algebra, Calculus, Probability, Statistics, Matrices
- Databases**  
PostgreSQL, MySQL, Redis, MongoDB, SQLite

## CERTIFICATIONS

Scientific Computing with Python - [freeCodeCamp](#)(10/2022)

Machine Learning with Python - [freeCodeCamp](#)(10/2022)

## ACHIEVEMENTS

Machine Learning Badge (2022)  
[LinkedIn](#)

Python Badge (2022)  
[LinkedIn](#)

## EDUCATION

- B.Tech - Mechanical Engineering**  
GNIOT, Greater Noida  
2015 - 2019,  
68.8%

- XII- Higher Secondary**  
Woodbine Modern School  
2014-2015,  
79.8%

## COURSEWORK

Data Structures and Algorithms  
System Design  
Cryptography  
Operating Systems

## SOFT SKILLS

Fast Learner, Leadership, Optimistic, Communication Skill, Time Management