**Pratik Thorat** **Phone: (+91)8261006294 | GitHub | pratik.941@gmail.com**

## Skills

| | |
|---|---|
| **Programming** | Python, Java, SQL |
| **Visualization** | Power BI, Excel Charts, Jupyter Notebook |
| **Database** | MySQL, Mongodb |
| **Machine Learning** | Statistics and Probability, Numpy,Pandas, A/B testing |
| **Deep Learning** | Tensorflow, Pytorch,Computer Vision,NLP |

## Projects

July 2022 – Sept 2022

**Air Pressure Sensor Fault Prediction – (ML Classification)**

- Developed a binary classification model to predict air pressure sensor failures in heavy-duty vehicles, reducing unplanned maintenance.
- Utilized Logistic Regression, Random Forest, Decision Tree, and XgBoost models to achieve an **F1 score of 0.87.**
- **Decreased maintenance costs by 25%** through early fault detection, saving the company $500,000 annually.
- Streamlined the deployment process by incorporating **GitHub Actions**, which expedited model updates and **reduced deployment time by 40%.**
- Technologies: Python, Transformers Library, scikit-learn, AWS (EC2, ECR), GitHub Actions, Docker.

Sep 2022 - Nov 2022

**Chicken Coccidiosis Classification – (Computer Vision)**

- Developed a computer vision system to classify chicken fecal samples as diseased or healthy.
- Achieved a high classification **accuracy rate of 95%.**
- Created a user-friendly front-end interface with Flask.
- Technologies: Python, TensorFlow, Flask, DVC.

May 2023 - Aug 2023

**Text Translation using Natural Language Processing – (Natural Language Processing)**

- Spearheaded a text translation solution for seamless English to Hindi conversion.
- **Enhanced translation quality by 20%** through fine-tuning techniques on opus-mt-en-hi.
- Validated improvements with a remarkable **BLEU score of 0.85.**
- Implemented GitHub Actions to create an efficient model update and deployment pipeline, decreasing deployment time by 30%.
- Technologies: Python, Hugging Face Transformers Library, AWS (EC2, ECR), GitHub Actions.

Aug 2023 - Present

**Sign Language Detection - (Computer Vision)**

- Implemented an end-to-end solution using YOLOv5 for sign language gesture recognition, achieving real-time performance with an **average frame rate of 30 FPS**.
- Utilized YOLOv5 object detection model to identify sign language phrases such as "Hello," "I love you," "Yes," "No," and "Please."
- Trained the model with transfer learning, achieving a **90% accuracy rate** in sign language detection.
- Deployed as a web application for user-friendly accessibility.
- Technologies: Python, YOLOv5, AWS (EC2), Flask.

## Certifications and Awards

Jun 2021 - Aug 2022

Ineuron full stack data science certification

## Education

**VNIT Nagpur, India** – *B.Tech in computer science and engineering*