1. **ANN project** 
   1. Regression loan amount prediction-->
      1. <https://github.com/shahil04/ds_materials/blob/main/9.Deep_learning/class_5.1_Tensors_Project_loan_regression.ipynb>
   2. Classifications loan eligibility check
      1. <https://github.com/shahil04/ds_materials/blob/main/9.Deep_learning/class_5.1_Tensors_Project_loan_regression.ipynb>
2. Computer Vision
   1. Hand written digit recogniion
      1. Classification -->
         1. <https://github.com/shahil04/ds_materials/blob/main/9.Deep_learning/class_6_mnist-classifier-first-deep-learning-project.ipynb>
   2. Object Detection
      1. Object Detection - CAR DEFECT DETECTION

<https://github.com/shahil04/CAR-DEFECT-DETECTION-Object-Detection.git>

* + - 1. Template Matching
      2. Edge Detection

* 1. Region Proposal Techniques
  2. Semantic Segmentation
  3. Object Detection <https://github.com/shahil04/ds_materials/tree/main/9.Deep_learning/cv/object_detection_projects>

1. Computer Vision with OpenCV
   1. Working with images
   2. Working with Videos
   3. OCR ( Pytesseract) <https://github.com/shahil04/Text-Recognition->
      1. Text Recognition
      2. Text Recognition from image

<https://github.com/shahil04/ds_materials/tree/main/9.Deep_learning/cv/ocr_text_recognition>

* 1. Object Detection using Haar Cascade
     1. MobileNet SSD
     2. RCNN and YOLO
  2. Media Pipe - FaceMesh, Pose Detection,Hand, Pose and Holistic Models

<https://github.com/shahil04/ds_materials/tree/main/9.Deep_learning/cv/mediapipe>

1. CNN PROJECTS WITH DIFFERENT MODELS
   1. Image Classification - FACE RECOGNITION PROJECT

<https://github.com/shahil04/ds_materials/blob/main/9.Deep_learning/cv/face_detection_Project.ipynb>

* + 1. Haar Cascade Clasifier
    2. Image Classification with CNN’

<https://github.com/shahil04/ds_materials/tree/main/9.Deep_learning/project/flask_mnist_cnn_app>

* + 1. <https://github.com/shahil04/ds_materials/tree/main/9.Deep_learning/project/face_recognition_project>

1. Natural Language Processing
   1. Name Entity Recognition
   2. Text Visualization
   3. Text Classification
      1. TFIDF Vectorization
      2. with ML <https://github.com/shahil04/ds_materials/blob/main/9.Deep_learning/nlp/nlp_class_vectorization_weekends.ipynb>
      3. Text Classification with ANN

<https://github.com/shahil04/ds_materials/blob/main/9.Deep_learning/nlp/imdb_sentiment_analysis.ipynb>

* 1. Sentiment Analysis

<https://github.com/shahil04/ds_materials/blob/main/9.Deep_learning/class_11_z-Sentiment%20Analysis%20with%20ANN.ipynb>

* + 1. PROJECT ON rnn,lstm,
       1. Implementations with code
       2. Project
          1. Text classification
          2. Text generation
          3. Text summariztion
    2. Kaggle
  1. gru, attentions models
     1. Code implementations
     2. Projects
        1. Text Generations
        2. Classification
        3. Q&A
  2. Transformers based project
     1. Face Hugging Transformers --> <https://colab.research.google.com/drive/1Zy_5GXcyg2JOqhefg40BrB0QOKyb3Ay1?usp=sharing>
     2. Text to image --> <https://github.com/shahil04/text-to-image-huggingface-project>
     3. **LLM Models** -->
        + 1. BERT,
          2. GPT4,

<https://colab.research.google.com/drive/11sId8zmcV3WgTlBMk5_lcAQYI6sbaJHg#scrollTo=AgsILkwSWH5T>

* + - * 1. Claude,
        2. Mistral,
        3. LLAMA,
        4. Falcon -->

**with fine-tune using LoRa, QLora, Peft)**

* + - 1. Story generation
      2. Text classification
      3. Text summarize
      4. Q&A
      5. Chatbot
      6. Content create
      7. Image generate
      8. Pdf read
  1. RASA Chatbot
  2. Langchain tutorial
  3. Rag Tutorial
  4. LLM Projects framework(langchain,llamaindex,transformers)
     1. Huggingface+ langchain(), vector database ,openai
     2. Huggingface+ langchain, vector database ,Ollama

1. Time Series Analysis
   1. Weather Forecasting using ARIMA Model
   2. Stock Price Prediction using Sequence Model

CHATBOT

RLHF for fine tuning (advance)

vectorDB,Rag, Langchain

Advance Projects:

* MCP, agents, agent2agents, autonomus agents
* Tools (n8n, make.com, love, zapier)