AI Makerspace – Ahmed Abouslima

CloudRun Deployment

PyCaret Classification Walkthrough

GitHub

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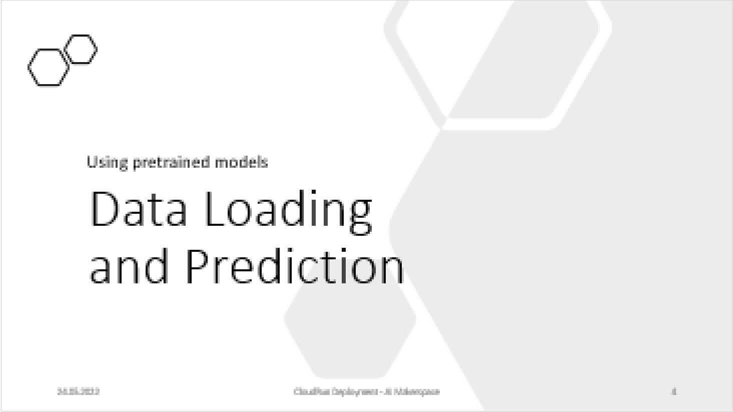

Using pretrained models

Data Loading and Prediction

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Using Flask

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Using pretrained models

Data Loading and Prediction

Preprocessing

- Encoding
- Normalizing/Standardizing
- Transforming
- Resizing
- Converting
- ...

Testing

- Performing predictions
- Error handling

Using Flask

Creating the Endpoint

Model

- Install requirements
- Serve it in a function/class
- Test the function/class

scikit
learn

API/Endpoint

- Create the appropriate endpoint (GET/POST)
- Check how data is acquired
- Perform the required preprocessing
- Check how data is returned

Flask

Endpoint Testing

- Use a virtual environment
- Using Postman
- Check for errors
- Take a breath

Deploying to CloudRun

Required files

- Application file (app.py)
- Model file (if needed)
- Requirements file
- Dockerfile

CHECK ME

Steps of Deployment

- Push the repository to GitHub
- Open CloudRun
  - Create Service
  - Continuously deploy new versions from a source repo (Set up with Cloud Build)
  - Choose repository and branch to deploy
  - Choose Dockerfile as build type
  - Configure the settings and create

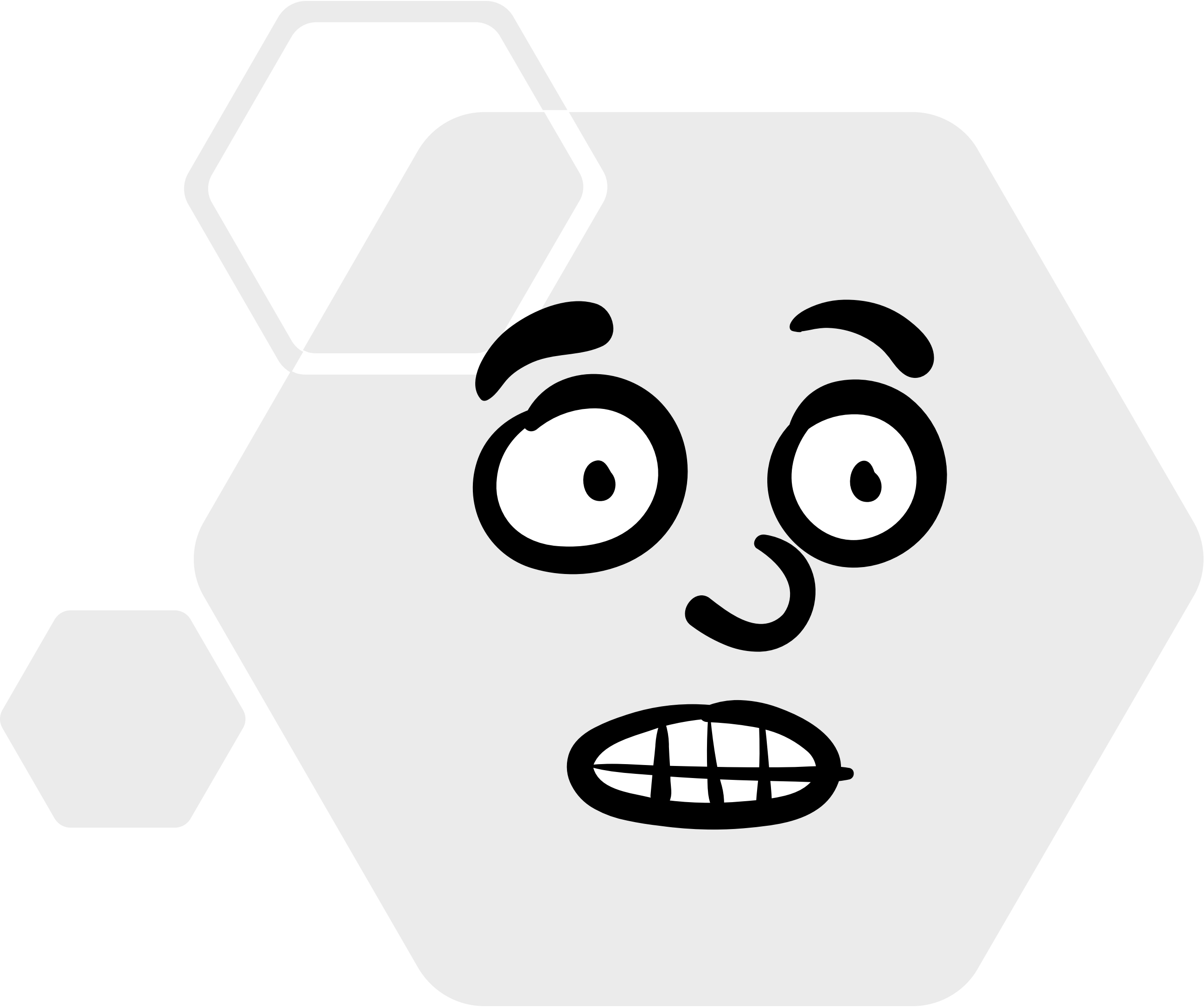
Small Task

Background Removal

24.05.2022

Batch processing

- Clone the GitHub repo
- Open the BGRemoval directory
- If any of the RGBA values are missing in the request, make sure a default value of zero is added
- Create a new endpoint --> /batch
    - The endpoint accepts multiple **files** in the POST request
    - Perform the background removal on all images
    - Save them locally
    - Return a JSON body containing {"Status": "x photos has been processed"}



THANK YOU