Kalah : A place for all the artists

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Agenda

- Motivation
- Project Description & Features
- Design
- About Model
- Model Performance

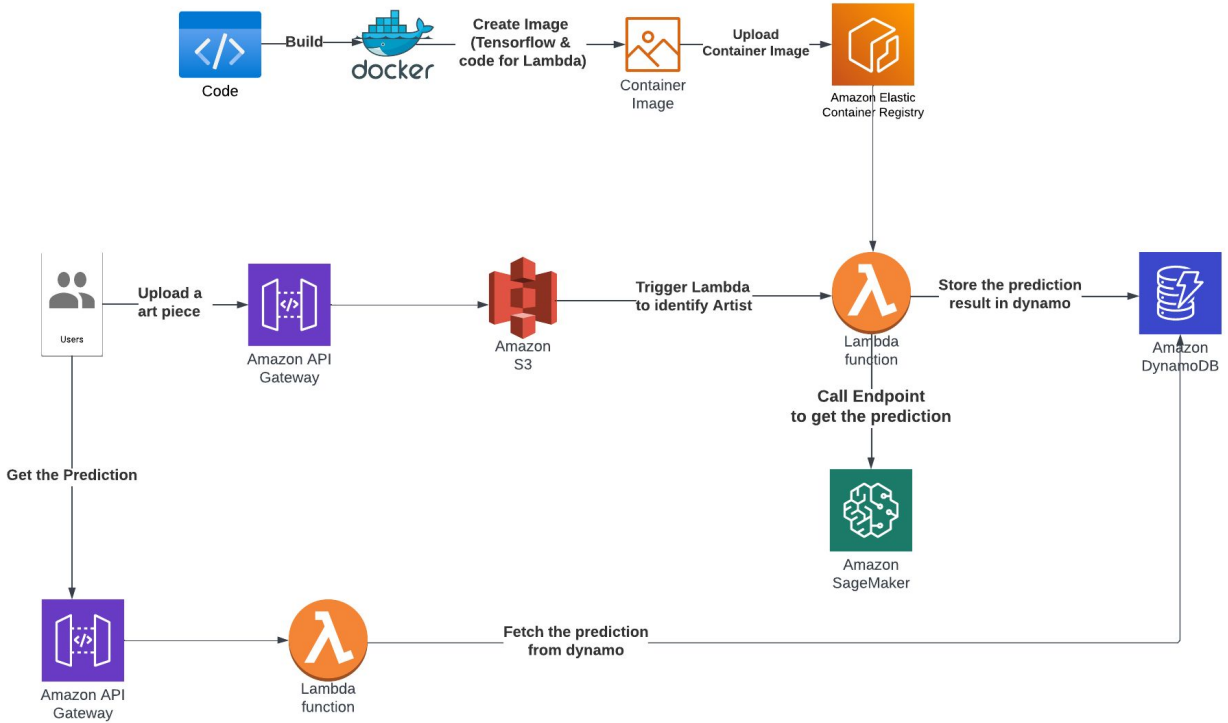
Motivation

- Building a platform to enable small artists to tell their stories and market their art pieces, ultimately enabling them to sell their art pieces online
- We want to bridge the gap between artists and middle-class people who are art enthusiasts and would like to buy affordable art for themselves and might not have a great understanding of it.

Product Features

- Login/SignUp
- Search Arts by Artist name, Description & Labels
- Upload Art Piece & its information
- Find Artist From Image

System Design: Identify Art from Artist



Push to ECR Container Registry

```
(base) mohitshankarpursnani@MOHITs-MBP tensorflow-inference-docker-lambda % sam deploy
8f9e1f4166d0: Pushed
dec7d455c62d: Layer already exists
6c9c77855128: Layer already exists
064f656e9752: Layer already exists
dba71cec2783: Layer already exists
06bbb584618c: Layer already exists
c0e136a9e292: Layer already exists
914c554a41b0: Layer already exists
50371926d9f3: Layer already exists
d3cd6d8c0fe9: Layer already exists
237a70518fc1: Layer already exists
2e6217b44c5e: Layer already exists
820796327543: Layer already exists
07bac42da939: Layer already exists
tensorflowinferencefunction-7501b63c4797-python3.7-v1: digest: sha256:5fd9eddc740c65ad3405f38331fe44dcca7dc786b5aca2280b2d10f87cc0a0b1 size: 3267

        Deploying with following values
        ===============================
        Stack name                   : sam-app
        Region                       : us-east-1
        Confirm changeset            : True
        Disable rollback             : False
        Deployment image repository  :
                                       {
                                           "TensorFlowInferenceFunction": "137929100830.dkr.ecr.us-east-1.amazonaws.com/samapp7427b055/tensorflowinferencefunction402a36b7repo"
                                       }
        Deployment s3 bucket         : aws-sam-cli-managed-default-samclisourcebucket-odkfi1pgbvrq
        Capabilities                 : ["CAPABILITY_IAM"]
        Parameter overrides          : {}
        Signing Profiles             : {}

Initiating deployment
=====================
Uploading to sam-app/5e86f490d9cfa172f8dec084c4a5b6cf.template  1118 / 1118  (100.00%)

Waiting for changeset to be created..
CloudFormation stack changeset
---------------------------------------------------------------------------------------------------------------------------------------------------------------------
Operation                                       LogicalResourceId                               ResourceType                                    Replacement
---------------------------------------------------------------------------------------------------------------------------------------------------------------------
* Modify                                        TensorFlowInferenceFunction                     AWS::Lambda::Function                           False
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Changeset created successfully. arn:aws:cloudformation:us-east-1:137929100830:changeSet/samcli-deploy1671670716/ef4a6424-ebd2-450a-aa95-a95d42898e6b


Previewing CloudFormation changeset before deployment
=====================================================
Deploy this changeset? [y/N]: y

2022-12-21 19:58:50 - Waiting for stack create/update to complete

CloudFormation events from stack operations (refresh every 0.5 seconds)
---------------------------------------------------------------------------------------------------------------------------------------------------------------------
ResourceStatus                                  ResourceType                                    LogicalResourceId                               ResourceStatusReason
---------------------------------------------------------------------------------------------------------------------------------------------------------------------
UPDATE_IN_PROGRESS                              AWS::Lambda::Function                           TensorFlowInferenceFunction                     -
UPDATE_COMPLETE                                 AWS::Lambda::Function                           TensorFlowInferenceFunction                     -
UPDATE_COMPLETE_CLEANUP_IN_PROGRESS             AWS::CloudFormation::Stack                      sam-app                                         -
UPDATE_COMPLETE                                 AWS::CloudFormation::Stack                      sam-app                                         -
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CloudFormation outputs from deployed stack
```
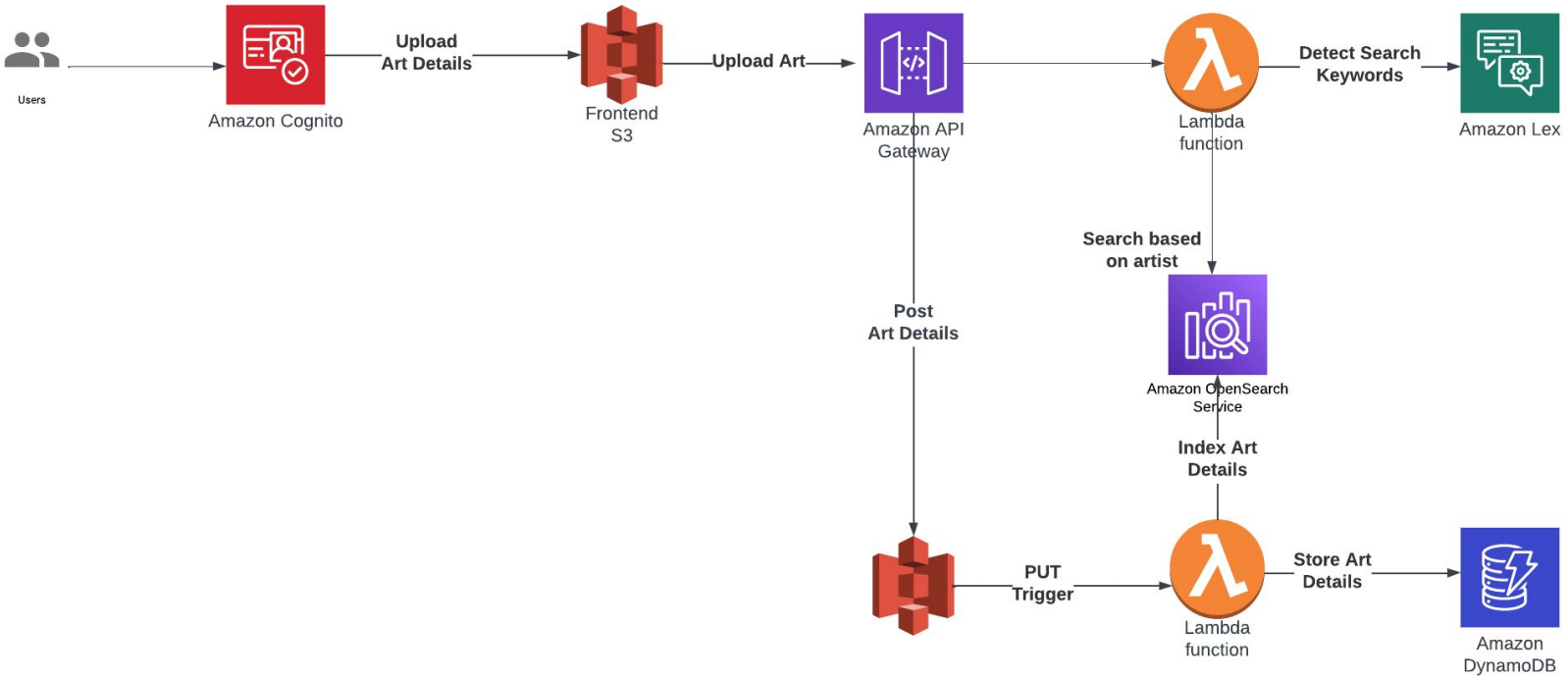
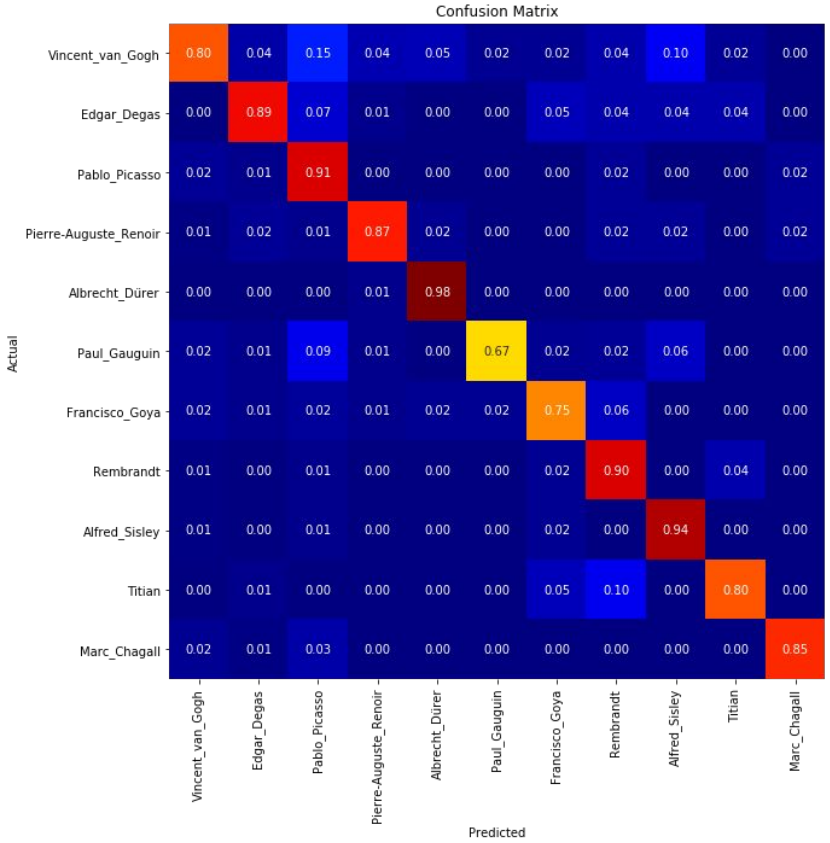

System Design: Store & Search Art Pieces



About Model

- Used Tensorflow Resnet50 Model
- Trained model for 10 epochs
- For optimization we used Adam optimizer with a learning rate of 0.0001
- For loss calculation used categorical cross entropy

Model Performance



Thank You !