

AWS DeepLens Workshops

AWS DEEPLENS
IS NOT A
VIDEO CAMERA...

...IT'S THE
WORLD'S FIRST
DEEP LEARNING
ENABLED
DEVELOPER KIT



IN THIS WORKSHOP WE WILL COVER

LAB #1: ML OVERVIEW



LAB #2: DEPLOYING A PROJECT



OBJECT DETECTION

Accurately detect and recognize objects

LAB #3: TRAIN A MODEL IN AMAZON SAGEMAKER

LAB #4: INTEGRATE THE PROJECT WITH OTHER AWS SERVICES

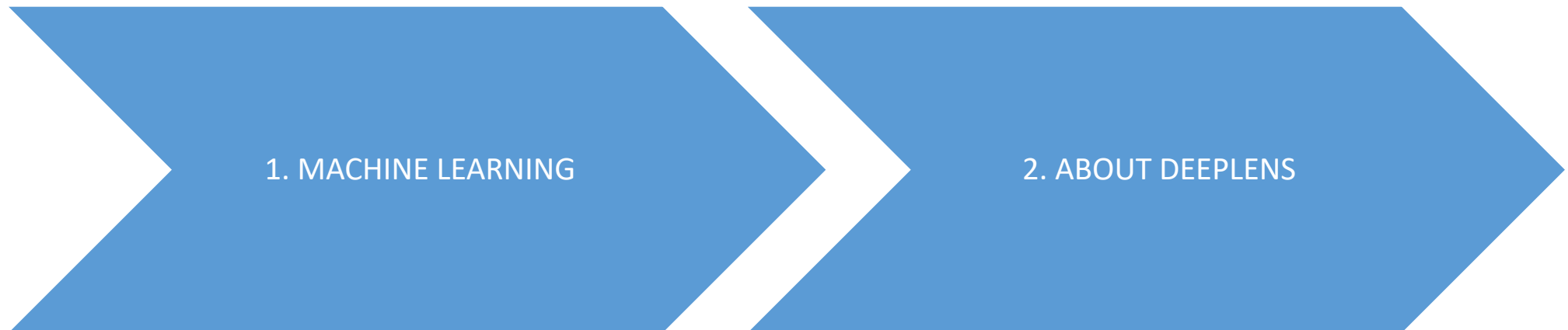


WORKSHOP FORMAT

- Hands-on workshop. Every developer will have an AWS DeepLens set-up
- Length : Half-Day

FOUNDATIONS OF ML

- Objective:
 - Learn key machine learning concepts
 - Deep dive into how DeepLens works
- Time: @30 mins



LAB #1: DEPLOY A PROJECT TO AWS DEEPLENS

- Objective:
 - Learn about sample projects available in AWS DeepLens
 - Deploy a sample project to AWS DeepLens
 - 5 minutes to your first computer vision project
- Time: @30 mins
- Lab Link:
<https://github.com/mahendrabairagi/DeeplensWorkshop/tree/master/Registration%20and%20project%20deployment>



SAMPLE PROJECTS ON AWS DEEPLENS

ARTISTIC STYLE
TRANSFER



OBJECT
DETECTION



FACE DETECTION /
RECOGNITION



ACTIVITY
DETECTION



HOT DOG /
NOT HOT
DOG



CAT VS. DOG



We will deploy any two of these projects during this lab

LAB #2: Train Image classification model in Sagemaker and deploy it on Deeplens, do local lambda inference

- Objective:
 - Learn how to train image classification model on Sagemaker
 - Write lambda to do local inference
 - Extend your project with an AWS integration
- Time: @1 hour
- Lab Link:
<https://github.com/mahendrabairagi/DeeplensWorkshop/tree/master/SageMakerImageClassification>



LAB #3: TRAIN A MODEL IN AMAZON SAGEMAKER and Integrate with Other AWS Services

- Objective:
 - Build a model in Amazon SageMaker
 - Integrate with services such as Rekognition
 - Import into AWS DeepLens
 - Deploy the model to see it in action!
- Time: @2 hours
- Lab link: <https://github.com/mahendrabairagi/DeeplensWorkshop/blob/master/lab3.md>





WHAT WILL YOU BUILD WITH
DEEPLENS?