

# AWS DeepLens Workshops



AWS DEEPLENS  
IS NOT A  
VIDEO CAMERA...

...IT'S THE  
WORLDS 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

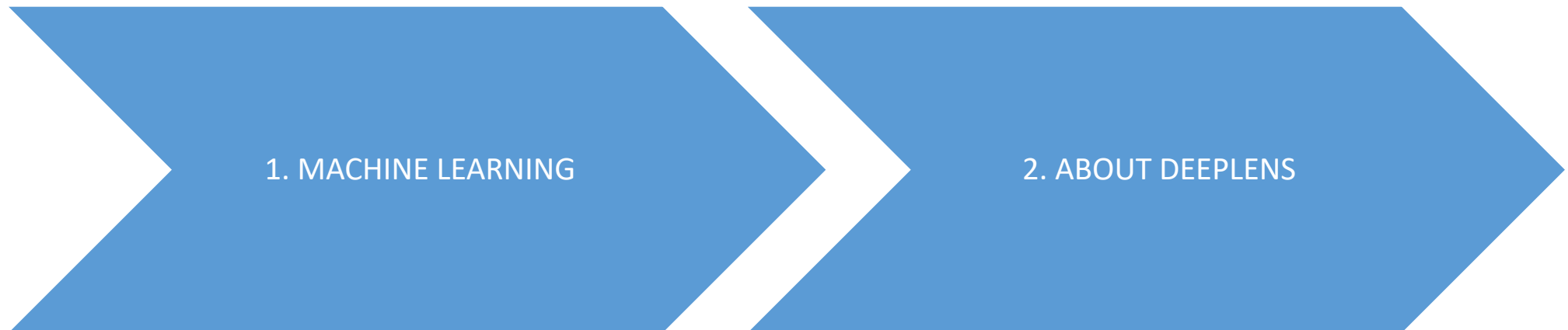


# WORKSHOP FORMAT

- 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/customer-workshops.md>





WHAT WILL YOU BUILD WITH  
**DEEPLENS?**