

Closing keynote

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The Amazon ML Stack

<https://ml.aws>

AI SERVICES

(App developers with little knowledge of ML)



Amazon
Rekognition
Image



Amazon
Rekognition
Video



Amazon
Textract



Amazon
Polly



Amazon
Transcribe



Amazon
Translate



Amazon
Comprehend
& Comprehend
Medical



Amazon
Lex



Amazon
Forecast



Amazon
Personalize

Vision

Speech

Language

Chatbots

Forecasting

Recommendations

ML SERVICES

(ML developers and data scientists)



Amazon
SageMaker

Ground Truth

Notebooks

Algorithms

AWS Marketplace

Supervised
Learning

Unsupervised
Learning

Reinforcement
Learning

Training

Optimization
(Neo)

Deployment

Hosting

ML FRAMEWORKS & INFRASTRUCTURE

(ML researchers and academics)

Frameworks



Interfaces



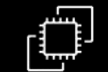
Infrastructure



Amazon
EC2 P3
& P3DN



Amazon
EC2 C5



FPGAs



AWS
Greengrass



Amazon
Elastic
Inference



Amazon
Inferentia

Getting started

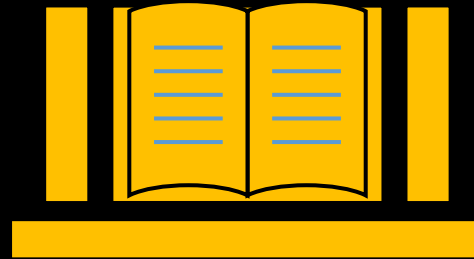
- Machine Learning University
- AWS DeepLens & AWS DeepRacer
- AWS blogs
- Github repositories
- Need help?
- AWS events
- User Groups & Meetups

Machine Learning University

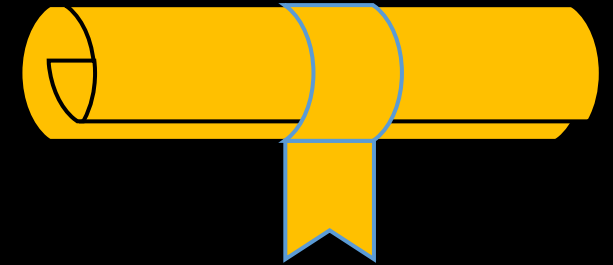
<https://aws.training/machinelearning>



Uses the same
materials used to train
Amazon developers



Foundational knowledge
with
real-world application



Structured
courses and
specialist certification

Helping developers learn computer vision

AWS DeepLens: the world's first deep learning-enabled video camera for developers



- Purpose-built for ML-skills development
- Fully programmable & customizable
- Build custom Amazon SageMaker models
- 10-minutes to your first deep learning project

Helping developers learn RL

AWS DeepRacer: a fully autonomous 1/18th-scale race car




- Build machine learning models in Amazon SageMaker
- Train, test, and iterate on the track using the AWS DeepRacer 3D racing simulator
- Compete in the world's first global autonomous racing league, either at AWS Summits or at virtual events
- Race for prizes and a chance to advance to win the coveted AWS DeepRacer Cup

<https://aws.amazon.com/deepracer/league/>

AWS Blogs

AWS News Blog


Category: Artificial Intelligence



Using AWS AI and Amazon Sumerian in IT Education
by Cyrus Wong | on 13 DEC 2018 | in Amazon Machine Learning, Amazon Sumerian, AR & VR, Artificial Intelligence, AWS Community Heroes | Permalink | Comments | Share

This guest post is by AWS Machine Learning Hero, Cyrus Wong. Cyrus is a Data Scientist at the Hong Kong Institute of Vocational Education (Lee Wai Lee) Cloud Innovation Centre. He has achieved all nine AWS Certifications and enjoys sharing his AWS knowledge with others through open-source projects, blog posts, and events. Our institution (IVE) [...]


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Learn about New AWS re:Invent Launches – December AWS Online Tech Talks
by Robin Park | on 07 DEC 2018 | in Amazon Machine Learning, Compute, Database, Internet Of Things, Security, Identity, & Compliance, Serverless, Storage | Permalink | Comments | Share

Join us in the next couple weeks to learn about some of the new service and feature launches from re:Invent 2018. Learn about features and benefits, watch live demos and ask questions! We'll have AWS experts online to answer any questions you may have. Register today! Note – All sessions are free and in Pacific [...]


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Ensure consistency in data processing code between training and inference in Amazon SageMaker
by Thomas Hughes and Urvashi Chowdhary | on 11 JAN 2019 | in SageMaker | Permalink | Comments | Share

In this blog post, we'll show you how to deploy an inference pipeline consisting of pre-processing using SparkML, inferences using XGBoost, and post-processing using SparkML. For this particular example, we are using the Car Evaluation Data Set from UCI's Machine Learning Repository and training an XGBoost model to predict the condition of a car (i.e. unacceptable, acceptable, good, or very good).

[Read More](#)



How simplishow uses Amazon Polly to voice stories in their explainer videos
by Hans-Christian Pahlig | on 11 JAN 2019 | in Amazon Polly, Artificial Intelligence | Permalink | Comments | Share

More than ten years ago, simplishow started to help their customers explain materials, ideas, and products by using three-minute animated explainer videos. These explainer videos use two hands and simple, black and white illustration to lead viewers through a story. Today, the company also provides mysimplishow.com, a platform that allows anyone to produce high-quality explainer [...]

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AWS News Blog

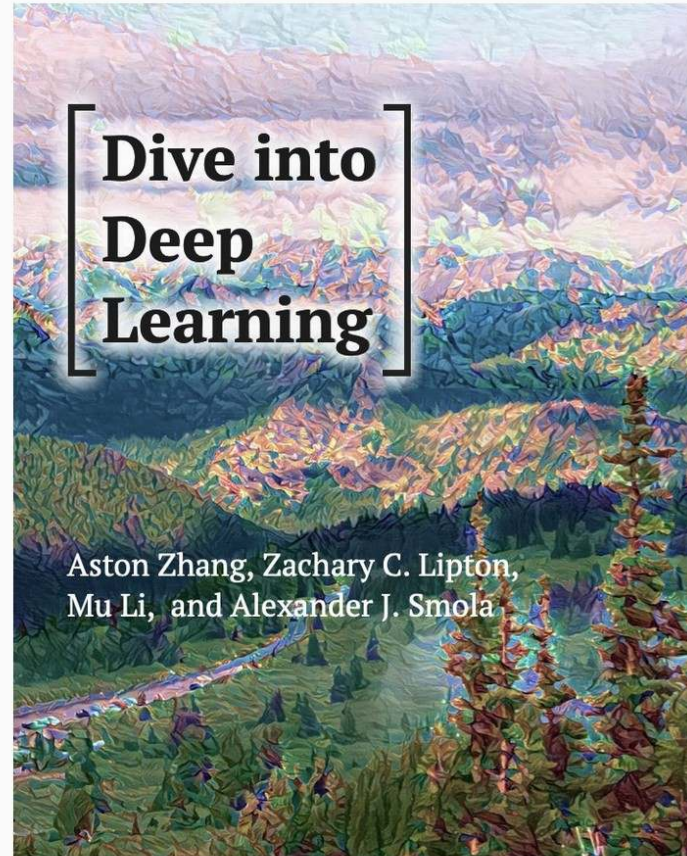
<https://aws.amazon.com/blogs/aws/category/artificial-intelligence/>

AWS Machine Learning Blog

<https://aws.amazon.com/blogs/machine-learning/>

“Dive into Deep Learning”

<http://d2l.ai/>



Dive into Deep Learning

An interactive deep learning book with code, math, and discussions

The contents are under revision

Github repositories: Amazon SageMaker

- Notebooks: <https://github.com/aws-labs/amazon-sagemaker-examples>
- Python SDK: <https://github.com/aws/sagemaker-python-sdk>
- Spark SDK: <https://github.com/aws/sagemaker-spark>
- Open source containers
 - TensorFlow: <https://github.com/aws/sagemaker-tensorflow-container>
 - Apache MXNet: <https://github.com/aws/sagemaker-mxnet-container>
 - PyTorch: <https://github.com/aws/sagemaker-pytorch-container>
 - Chainer: <https://github.com/aws/sagemaker-chainer-container>
 - Scikit-learn: <https://github.com/aws/sagemaker-scikit-learn-container>

Github repositories: AI services

- Lots of examples at <https://github.com/awslabs> and <https://github.com/aws-samples>
- <https://github.com/awslabs/rekognition-image-search-engine>
- <https://github.com/awslabs/rekognition-video-utils>
- <https://github.com/aws-samples/amazon-transcribe-comprehend-podcast>
- <https://github.com/aws-samples/aws-transcribe-captioning-tools>
- <https://github.com/aws-samples/aws-lex-web-ui>
- And more.

Need help? Here's where to go

- AWS Forums
<https://forums.aws.amazon.com>
then pick the appropriate service forum
- Stack Overflow
<https://stackoverflow.com>
then tag your question with *amazon-sagemaker*, *amazon-polly*, etc.

AWS Events

<https://aws.amazon.com/events/>

- AWS re:Invent – Dec. 2-6, 2019

<https://reinvent.awsevents.com/>

- AWS Summits

<https://aws.amazon.com/events/summits/>

- AWS Builders Day & Dev Days

User Groups & Meetups

- AWS User Groups

<https://aws.amazon.com/developer/community/usergroups/>

- Apache MXNet User Groups

<https://cwiki.apache.org/confluence/display/MXNET/Meetups+and+Hangouts>

- Need an AWS speaker?

<https://aws.amazon.com/developer/community/evangelists/>



Thank you!

Our moderators are waiting for your questions.

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