



The background features a complex, multi-colored geometric pattern composed of numerous triangles in shades of orange, red, brown, and black, radiating from a central point.

aws INNOVATE
AI / ML EDITION

Opening Keynote

Javier Ramirez
Senior Developer Advocate (Spain & Portugal)
Amazon Web Services



supercoco9



ramirez



More than one hundred thousand customers use AWS for machine learning



AI Services	Vision	Speech	Chatbots	Text	Business tools	Contact centers	Search	Code + DevOps	Industrial AI
	Rekognition	Polly Transcribe	Lex	Comprehend Translate Textract	Personalize Forecast Fraud Detector	Contact Lens Connect Voice ID	Kendra	CodeGuru DevOps Guru	Panorama Appliance and SDK, Monitron, Lookout for Equipment, Lookout for Vision
SAGEMAKER STUDIO IDE									
Amazon SageMaker	Label data	Visualize in notebooks	Pick algorithm	Train models	Tune parameters	Deploy in production	Manage & monitor		
ML frameworks & infrastructure	PyTorch, Apache MXNet, TensorFlow	AMIs & containers	GPUs	Inferentia	Elastic inference	FPGA			

TENET 1

Provide firm foundations

Choice in frameworks



TensorFlow



PyTorch



Choice in frameworks

92%
of cloud-based
TensorFlow runs on AWS

91%
of cloud-based
PyTorch runs on AWS

Nucleus Research, Deep Learning on AWS, 2020

Fastest training times on **MASK-RCNN** and **T5-3B**

Mask-RCNN



Fastest recorded time

**From 28 min to
6 min, 13 sec**



Fastest recorded time

**From 27 min to
6 min, 45 sec**

T5-3B



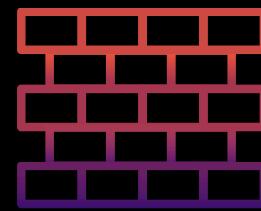
Fastest recorded time

**Development to trained
model in 5.9 days**

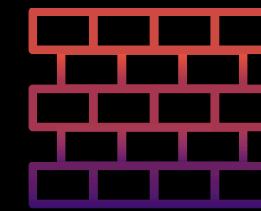
TENET 2

Create the shortest
path to success

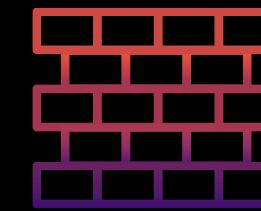
Machine learning development was a **complex and costly process**



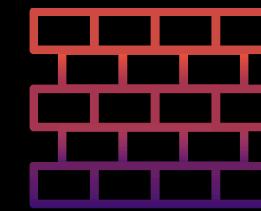
Collect and prepare
training data



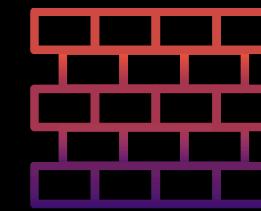
Choose and optimize your ML algorithm



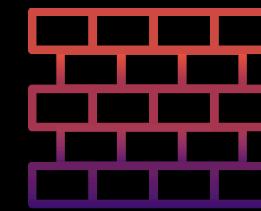
Set up and manage
environments
for training



Train and tune model
(trial and error)



Deploy
model in production



Scale and manage
the production environment

Amazon SageMaker: **most complete end-to-end service for machine learning**



Tens of thousands of customers use **Amazon SageMaker**



TENET 3

Solve real business problems,
end-to-end

Machine learning is **reinventing virtually every industry**

MEDIA + ENTERTAINMENT



Voodoo

The Washington Post



AUTOMOTIVE



Atlas Van Lines



FINANCE

JPMORGAN CHASE & Co.

Moody's



Vanguard



INDUSTRIAL



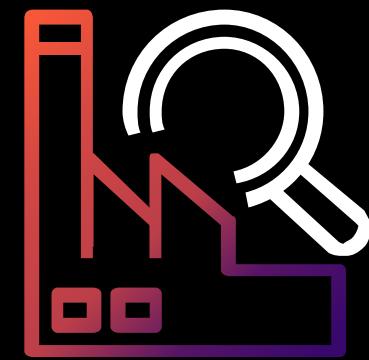
3M Science.
Applied to Life.



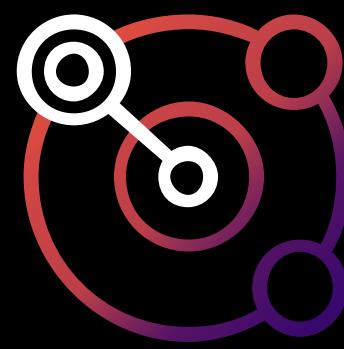
Improving industrial processes with machine learning



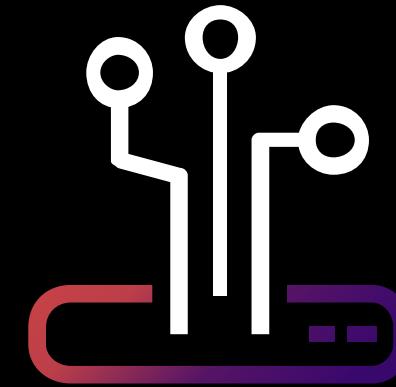
Amazon Monitron
An end-to-end solution
for equipment
monitoring



**Amazon Lookout for
Equipment**
Anomaly detection service
for industrial machinery



**Amazon Lookout for
Vision**
Spot product defects
using computer vision to
automate quality
inspection



**AWS Panorama
Appliance**
Add computer vision to
existing cameras



AWS Panorama SDK
Build new cameras that
run more sophisticated
computer vision models
at the edge

→ Opening in late 2022 or early 2023

→ 3 Availability Zones at launch

→ Eighth AWS Region in Europe, joining existing regions in Dublin, Frankfurt, London, Paris, Stockholm, and Milan and upcoming one in Zurich

MADRID

AWS Office

Customer Success
European Hub

X2 Edge Location

X2 Direct Connect
Location

LISBON

AWS Office

Edge Location

ARAGÓN

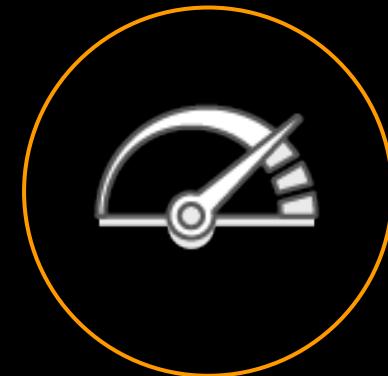
Upcoming AWS Region



Benefits of the AWS Spain Region



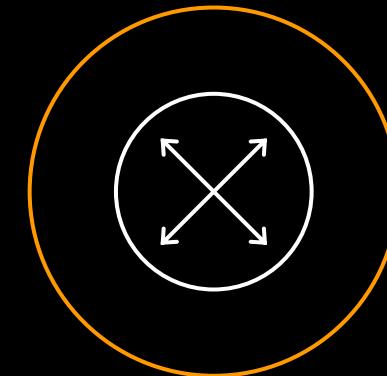
Security and
Compliance



Reduced Latency



Data in Spain



Multi-AZ Region



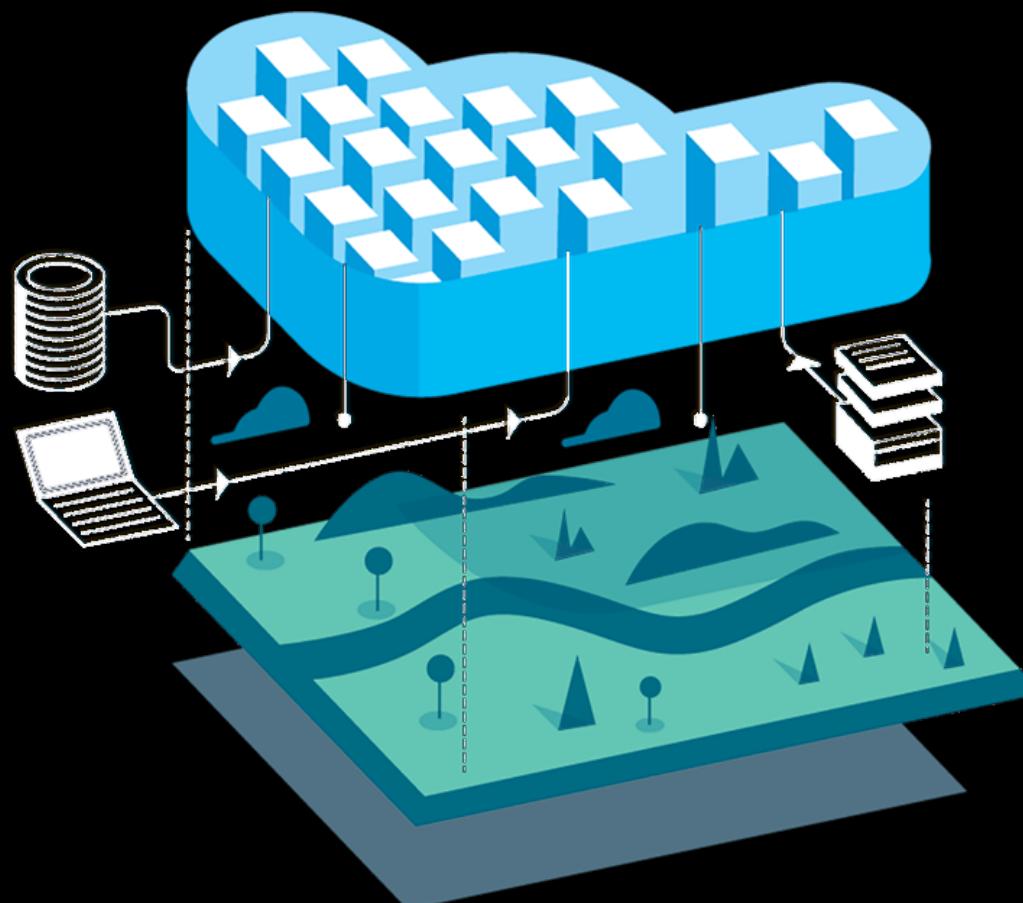
AWS Direct Connect
and
Private Connectivity

Availability, Scalability and Flexibility

AWS and sustainability

Investing in renewable energy (wind and solar)

Amazon Web Services (AWS) is committed to running our business in the most environmentally friendly way possible and achieving 100% renewable energy usage for our global infrastructure.



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THE Paris...
CLIMATE 10 years
PLEDGE Early

The AWS Cloud improves sustainability

- The results of a study by 451 Research show that AWS's infrastructure is **3.6 times more energy efficient** than the median of the surveyed U.S. enterprise data centers.
- Our customers can reduce their carbon emissions by 88% by using AWS

Two projects in Spain:

- Active Solar Farm in Seville, providing **149 megawatts of solar energy** for the AWS Region and Amazon Fulfillment Centers
- Solar Farm in Zaragoza that will deliver **50 megawatts of solar energy** to the upcoming AWS facilities

Source: 451 Research, 2019, All Rights Reserved.





<https://ml.aws>

Agenda – English Tracks

I'm an application developer	I'm a data scientist	I'm a data engineer	I'm an MLOps engineer	I'm a technical decision maker	I'm a business decision maker
Learn how to quickly and easily add AI capabilities and ML models to your applications.	Learn how to build, train, and deploy high-quality models at any scale, without having to worry about infrastructure.	Learn how to turn raw data into clean and expressive ML datasets, without having to manage any infrastructure.	Learn how to support data science and data engineering teams in the most efficient way.	There's more to ML than training and deploying models, especially in large organizations. Learn about AWS best practices for AI/ML.	For all its technical complexity, the main appeal of AI/ML is how it helps organizations innovate faster and improve business processes.

Agenda – Sesiones en Castellano

Título	Ponente
Crea tus propios modelos para detectar defectos y anomalías sin ser experto en aprendizaje automático	Anna Grüebler, Senior AI Specialist SA
Estandariza y automatiza tus procesos de ingeniería de características	Javier Ramírez, Developer Advocate
Identifique posible sesgo en sus conjuntos de datos y explique cómo funcionan sus modelos	María Gaska, Senior AI/ML Specialist SA
Automatice sus procesos de ML con pipelines de extremo a extremo	Antonio Rodriguez, Senior AI/ML Specialist SA

Thank you!

Javier Ramirez
Senior Developer Advocate (Spain & Portugal)
Amazon Web Services



<https://www.youtube.com/javierenlanube>