



Machine Learning Scientist

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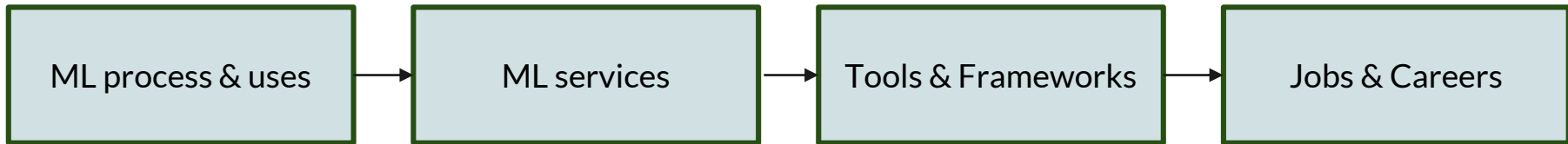




Agenda



- Defining Machine Learning process and use cases.
- The AWS Machine Learning suite of services
- Tools and frameworks used in Machine Learning.
- Jobs and careers in the Machine Learning field with AWS.



Defining Machine Learning process and use cases

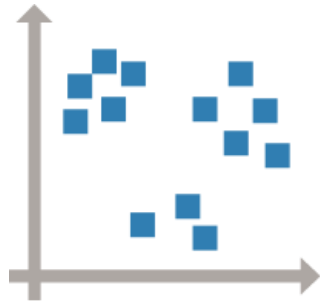
Defining Machine Learning process and use cases

What is Machine Learning?

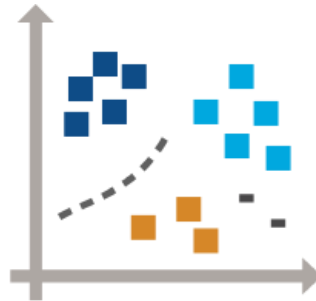


- Discover patterns and trends
- Find hidden intrinsic structures in data

- Help improve decision-making

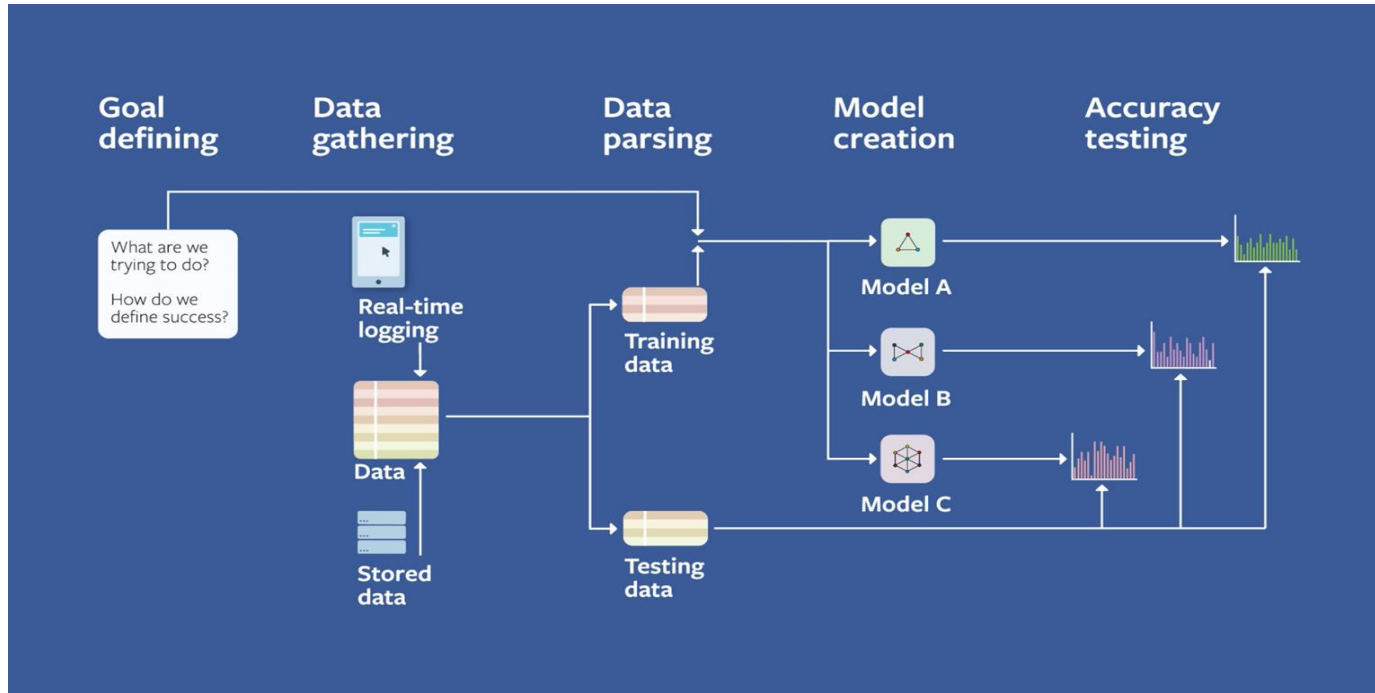


Clustering
Patterns in
the Data



Defining Machine Learning process and use cases

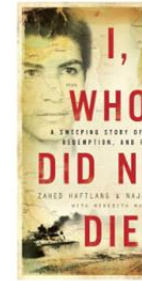
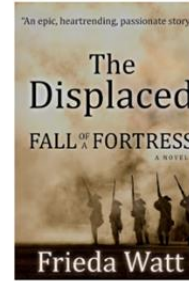
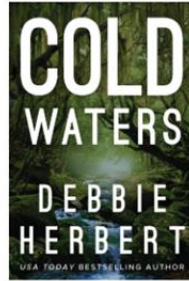
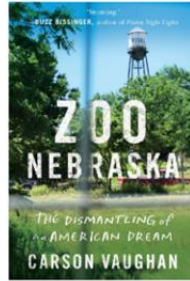
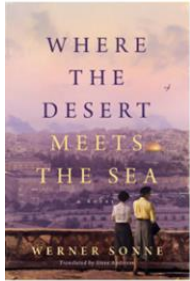
Machine Learning process



Defining Machine Learning process and use cases

Applications

Recommendations for You, Leyli



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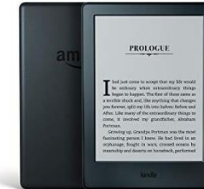
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- ☒ **This item:** Mounting Dream Full Motion TV Wall Mounts Bracket with Perfect Center Design for 26-55 Inch LED, LCD... **\$25.19**
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All book. No glare. Zero distractions.



Defining Machine Learning process and use cases

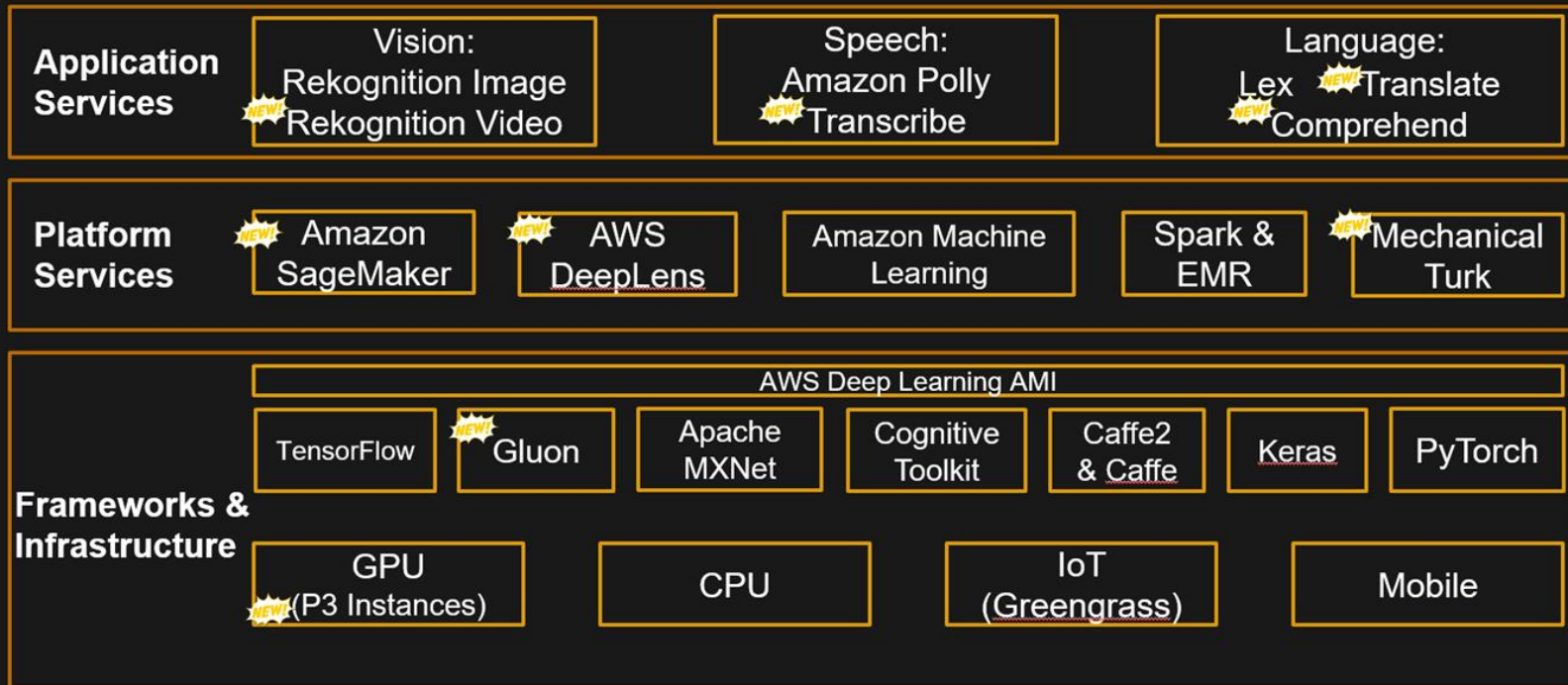
Applications



Use Style Check for a second opinion on what looks best



AWS ML Stack



AWS ML

Application & Platform Services



API-based Services for Developers

- **Amazon Rekognition**
 - Deep learning-based image and video analysis
- **Amazon Polly**
 - Turn text into lifelike speech using deep learning
- **Amazon Lex**
 - Conversational interfaces for applications, powered by the same deep learning technologies as Alexa
- **Amazon Translate**
 - neural machine translation service that delivers fast, high-quality, and affordable language translation

Amazon SageMaker

- **Build**
 - Data labeling
 - Managed Notebooks for Authoring Models
 - Built-in, High Performance Algorithms
- **Train**
 - Setup and manage training environments
 - Train & tune model
- **Deploy**
 - Deploy model in production
 - Scale & manage the production environment



Amazon SageMaker

AWS ML

Frameworks/Infrastructure Services



Frameworks/Infrastructure services for advanced data scientists

Part 1:

Amazon Deep Learning AMIs

Pre-configured environments to quickly build deep learning applications

Part 2:

MXNet & TensorFlow

Primary platforms for deep learning.

The specialized, well- optimized tensor libraries and backend implementations that Keras relies on.

Part 1: Amazon Deep Learning AMIs (DLAMIs)

- **DLAMIs**
 - Amazon Machine Image (AMI) provides the information required to launch an instance.
 - AWS Deep Learning AMIs provide tools to accelerate deep learning in the cloud, at any scale.
- **EC2 instance with pre-installed frameworks**
 - Amazon Elastic Compute Cloud (EC2) provides secure, resizable compute capacity in the cloud.
 - You can launch Amazon EC2 instances with all the popular deep learning frameworks.





Part 2:

Deep Learning Framework 1: MXNet

- **MXNet**
 - A fast and scalable framework with an concise API for machine learning.
- **Gluon**
 - MXNet includes the Gluon interface.
 - Gluon interface supports deep learning on the cloud, edge devices, and mobile apps.
 - You can build
 - linear regression
 - convolutional networks
 - recurrent LSTMs



Part 2:

Deep Learning Framework 2: TensorFlow

- **Popular framework**

- It has broad support in the industry.
- It has become a popular choice for deep learning, particularly in areas such as:
 - computer vision
 - natural language understanding
 - speech translation

- **How to use**

- By Amazon SageMaker
- By AWS Deep Learning AMIs



Opportunities at AWS as a Machine Learning Scientist

Working at AWS

- Customer Obsession
- Invent and Simplify
- Learn and be curious
- Hire and develop the best
- Insist on the highest standards
- Earn trust
- Deliver Results

AWS Competence

Machine Learning



Amazon Lex



Amazon ML



Amazon
Rekognition



Amazon
Polly



Amazon
Comprehend



Amazon
Transcribe



Amazon
Translate



Amazon
Kinesis



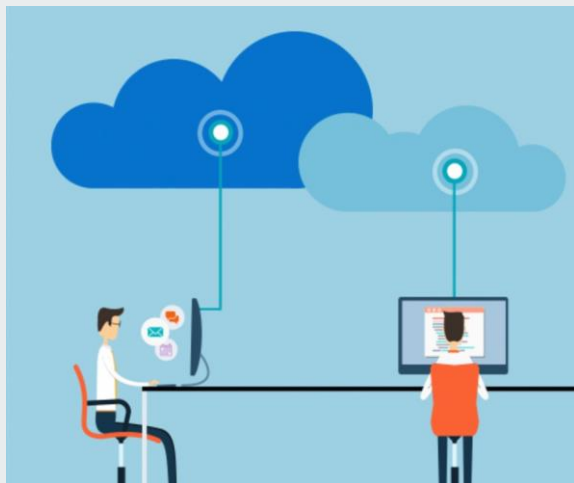
Amazon
Sagemaker



AWS
Data Pipeline



Cloud Support Engineer



Overview:

Be the forefront of Cloud technology, assisting a global list of companies that are taking advantage of a growing set of services and features to run their mission-critical applications.

- Extremely customer focused
- Be able to multi-task and utilize both written & verbal communication skills to help diverse range of customers resolve their technical issues



Cloud Support Engineer



Qualifications:

- ❖ 3+ Years' experience within a relevant technical position
- ❖ Bachelor's degree in Information Science / Information Technology, Computer Science / Engineering or a related field, or equivalent experience (4+ years)



Solutions Architect



Overview:

Delivering results in software/technology sales or consulting

- think strategically about business
- create technical definitions around customer objectives in complex situations
- develop solution strategies
- motivate and mobilize resources
- deliver results.



Solutions Architect



Qualifications:

- ❖ 7+ years' experience in the design and implementation of complex, Microsoft Windows-based IT systems.
- ❖ 5 years of hands-on experience in the design and implementation of Virtual Desktop Infrastructure (VDI) systems
- ❖ 2 + years' experience working in a customer-facing, sales-aligned role such as consultant, solutions engineer or solutions architect
- ❖ Bachelor's or advanced degree in computer science, MIS, engineering or related discipline.

Review



- Defining Machine Learning process and use cases.
- The AWS Machine Learning suite of services
- Tools and frameworks used in Machine Learning.
- Jobs and careers in the Machine Learning field with AWS.

ML process & uses

ML services

Tools & Frameworks

Jobs & Careers