AWS Machine Learning Specialty Course

From Basic to AWS Machine Learning Specialty certification
starting from **February 13th, 2021**

Register Now!

Do you know?

According to a Gartner report, Artificial Intelligence (AI) is estimated to pave the way for close to **2.3 million opportunities in upcoming years**. And if you look at a report from Indeed, vacancies in the realm of artificial intelligence has **doubled over the last three years**.Artificial intelligence can no longer be considered a technology of the future it is already shaping our everyday lives. Here is our guide to understanding the minds of machines.

While today's AI systems still fall short of that goal, they are starting to perform as well as, and sometimes better than, their creators at certain tasks. Thanks to new techniques that allow machines to learn from enormous sets of data, AI has taken massive leaps forward.

AI is starting to move out of research labs and into the real world. It is having an impact on our lives. There can be little doubt that we are entering the age of artificial intelligence.

About Course:

Psitron Technologies Pvt. Ltd presents a complete course on **AWS Machine Learning Specialty certification**. In this complete course, participants will be able to experience and explain the following things.

What is Machine Learning?

Machine learning is the science of getting computers to act without being explicitly programmed. In the past decade, machine learning has given us self-driving cars, practical speech recognition, effective web search, and a vastly improved understanding of the human genome.

Machine learning is so pervasive today that you probably use it dozens of times a day without knowing it. Many researchers also think it is the best way to make progress towards human-level AI.

Duration:

8 consecutive days with **4 hours** session each day, for a total of **32 hours** consisting of theory and hands-on practical sessions ,**20 hours** Programming Assignments.

Platform: Amazon Chime (ONLINE)

Schedule:

Note: *All sessions are on Weekends*

Date & Time:

- 13th February, 1 PM to 5 PM
- 14th February, 1 PM to 5 PM
- 20th February, 1 PM to 5 PM
- 21st February, 1 PM to 5 PM
- 27th February, 1 PM to 5 PM
- 28th February, 1 PM to 5 PM
- 6th March, 1 PM to 5 PM
- 7th March, 1 PM to 5 PM

Course Curriculum:

Refreshing Basics (8 Hours)

Getting Started with Python basics
- Python Basic *[Hands-on]*
- Introducing the Pandas Library *[Hands-on]*

Statistics & Probability
- Data Types
- Mean, Mode & Median *[Hands-on]*
- Probability Density Function, Probability Mass Function
- Common Data Distributions
- Percentiles and Moments *[Hands-on]*
- Variation and Standard Deviation *[Hands-on]*
- Conditional Probability
- Using matplotlib & Seaborn *[Hands-on]*
- The Bayes's theorem
- Linear Regression *[Hands-on]*
- Polynomial Regression & Multiple Regression *[Hands-on]*

Data Engineering Basic
- Bias or Variance Trade-off
- Data Cleaning & Normalization
- Normalizing numerical data
- K-Fold cross-validation to avoid overfitting *[Hands-on]*
- Feature Engineering and the Curse of Dimensionality
- Techniques for Imputation Missing Data
- Oversampling, Undersampling, and SMOTE
- Binning, Transforming, Encoding, Scaling, and Shuffling
- Dealing with Unbalanced data
- Handling outliers *[Hands-on]*

Data Engineering in AWS (8 Hours)

Data Engineering in AWS
- Introduction to Data Engineering
- Amazon S3 *[Hands-on]*
- Amazon S3 - Storage classes & Lifecycle Rules
- S3 Security
- Amazon S3 Security
- Glue Data Catalog & Crawlers *[Hands-on]*
- Glue ETL *[Hands-on]*
- Kinesis Data Streams & Kinesis Data Firehose *[Hands-on]*
- Kinesis Data Analytics *[Hands-on]*
- Kinesis Video Streams
- Kinesis ML Summary
- Introduction to Athena
- AWS Data Stores in Machine Learning
- AWS Data Pipelines
- AWS Batch
- AWS DMS - Database Migration Services
- AWS Step Functions
- Full Data Engineering Pipelines

Data Analysis in AWS (2 Hours)

Data Analysis in AWS
- Introduction Data Analysis
- Preparing Data for Machine Learning in a Jupyter Notebook.
- Time Series-Trends and Seasonality
- Amazon Athena *[Hands-on]*
- Overview of Amazon Quicksight *[Hands-on]*
- Types of Visualizations, and When to Use Them.
- Hadoop Overview & Elastic MapReduce (EMR) *[Hands-on]*
- Apache Spark on EMR *[Hands-on]*
- EMR Notebooks, Security, and Instance Types *[Hands-on]*

Modeling in AWS (2 Hours)

Modeling in AWS

- Introduction to Modeling
- Introduction to Deep Learning
- Activation Functions
- Convolutional Neural Networks
- Recurrent Neural Networks
- Deep Learning on EC2 and EMR
- Tuning Neural Networks
- Regularization Techniques for Neural Networks (Dropout, Early Stopping)
- Grief with Gradients: The Vanishing Gradient problem
- L1 and L2 Regularization
- The Confusion Matrix
- Precision, Recall, F1, AUC, and more
- Ensemble Methods (Bagging and Boosting)

Artificial Intelligence in AWS (1 Hours)

Artificial Intelligence in AWS

- Amazon Augmented AI
- Amazon CodeGuru
- Amazon Comprehend
- Amazon Forecast
- Amazon Fraud Detector
- Amazon Kendra
- Amazon Lex [Hands-on]
- Amazon Personalize
- Amazon Polly [Hands-on]
- Amazon Rekognition [Hands-on]
- Amazon Textract
- Amazon Transcribe
- Amazon Translate [Hands-on]
- AWS DeepComposer
- AWS DeepLens
- AWS DeepRacer

Machine Learning in Amazon SageMaker (10 Hours)

Introduction to SageMaker
- Understanding Machine Learning Pipeline
- Why SageMaker ?
- SageMaker for Machine Learning

SageMaker Setup
- AWS S3 bucket creation
- Notebook creation
- Data collection, transformation & upload to S3
- Model Selection & Training
- Model Deployment
- Model Validation

SageMaker Built-in Algorithms
- Blazing Text
- DeepAR Forecasting
- Factorization Machines
- Image Classification Algorithm *[Hands-on]*
- IP Insights
- K-Means Algorithm
- K-Nearest Neighbors (k-NN) Algorithm
- Latent Dirichlet Allocation (LDA)
- Linear learner algorithm *[Hands-on]*
- Neural Topic Model (NTM) Algorithm
- Object2Vec
- Object Detection Algorithm
- Principal Component Analysis (PCA) Algorithm
- Random Cut Forest (RCF) Algorithm *[Hands-on]*
- Semantic Segmentation
- Sequence to Sequence (seq2seq)
- XGBoost Algorithm

Model Training & Tuning
- Monitor & Analyze Training jobs
- Incremental Training
- Hyperparameter Tuning

Model Deployment

- Interface Pipeline
- Train once & Run Anywhere using Neo
- Elastic Interface
- Automatic Scaling
- Standard Practices

Using Machine Learning Frameworks with SageMaker

- Apache Spark with Amazon SageMaker
- TensorFlow with Amazon SageMaker *[Hands-on]*
- Apache MXNet with Amazon SageMaker
- Scikit-learn with Amazon SageMaker
- PyTorch with Amazon SageMaker

Ground Truth using SageMaker

- Data Labelling
- Input & Output data to Ground Truth
- Workforce for labelling - public, private, vendor

Monitoring & Watching (1 Hours)

Monitoring & Watching

- Monitoring with CloudWatch *[Hands-on]*
- Logging with CloudWatch *[Hands-on]*
- Logging in SageMaker API Calls with AWS CloudTrail *[Hands-on]*

Using SageMaker SDK

- Understanding boto3
- Actions - Common APIs
- Understanding SageMaker Endpoint API

Register Now!

Total Price: Rs. 9999 Only

Program price includes:
- 32hrs of Training + 20hrs Hands-On
- Service tax and VAT
- Certification

Group Discount:
Register as a group of **2** or more and get **Rs.1000/-** off per person on registrations.

Certification:
Participants will be certified by **Psitron Technologies Pvt. Ltd.**

Rules and Requirements:
- Every participant must have one laptop of their own.
- Required Software's installation assistance will be provided from Psitron

For more information contact.
Sarathkumar.C
Founder & CEO
Psitron Technologies Pvt. Ltd.
+918940876397 / +918778033930
 sarath@psitrontech.com
www.psitrontech.com

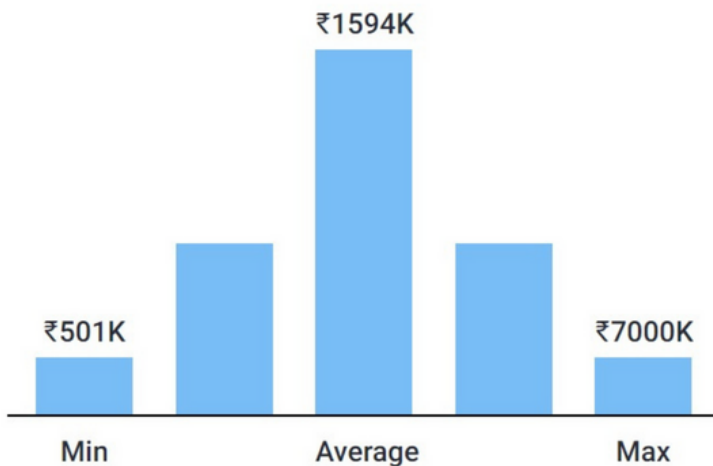*P.S. - Today, don't play it safe, play it smart.*

According to **Glassdoor report**, the annual salary of Machine Learning Engineers is like this!

Annual Salary

Hiring Companies

Source: Glassdoor

Frequently asked questions:

1.Do we need to attend all sessions for both days?
Yes, All registered participants have to attend all the sessions.

2.Whether workshop recording video will be sent to participants?
Yes, Workshop recorded videos will be sent to all participants.
Note: Will have access for Three Month after Workshop

3.What about Certificate?
All registered participants will get digital certification copy signed by Instructor from Psitron Technologies Pvt. Ltd.

4. What other opportunities?
Every registered percipient will be added into our community groups after the workshop, possibilities to explore much about ML/AI & AWS.

5. Opportunity for students?
Students will give the opportunity to work with our team as an intern for one month on real-time industrial projects for no cost.

6. What are the prerequisites?
Any person from science & engineering background can attend this workshop, No programming expertise needed.

Psitron Technologies

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+918778033930 | info@psitrontech.com

Who is Psitron Technologies ? Why should you care?

About Psitron Technologies:

Psitron Technologies is an IoT and AI Startups. Our mission at Psitron is to connect the world with innovative technologies. Psitron has responsibility for developing innovative innovations for addressing current problems in industries, especially focusing on industry 4.0 solutions.

Supported By

Awards/ Honour

FKCCI Bangalore best Startup award 2018

Living Talent, Dubai finalist of international level innovation competition 2018

HILTI International innovation competition finelist.

Psitron is supported by AWS activate program

IoT interThrone winner

Psitron Technologies

Esteemed Customers Feedbacks

Source:https://psitrontech.com/events.html

★★★★★   Fri, 04 Oct

Awsome workshop on IoT in AWS.Good for one who what to get started with IoT - by Akshay Singh for Internet of things (IoT) in Amazon Web Services Workshop - With SarathKumar organized by SHARATH KUMAR .

★★★★★   Fri, 04 Oct

Really good workshop, Had a good experience in AWS. Experienced trainer. - by Sanjay for Internet of things (IoT) in Amazon Web Services Workshop - With SarathKumar organized by SHARATH KUMAR .

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★★★☆☆   Mon, 30 Sep

It was good, but it would have been better why and what the each step is and why we should do that steps. - by Anvs Manideep for Internet of things (IoT) in Amazon Web Services Workshop - With SarathKumar organized by SHARATH KUMAR .

★★★★★   Wed, 21 Aug

Useful, Good start for AWS ML services. - by Ramesh for Machine Learning & Artificial Intelligence in AWS - With Sarath Kumar organized by SHARATH KUMAR .

★★★★☆   Tue, 20 Aug

It is been good learning experience. Mr Sarath is been interactive speaker. - by Archana Naik for Machine Learning & Artificial Intelligence in AWS - With Sarath Kumar organized by SHARATH KUMAR .

★★★★★   Mon, 19 Aug

Thanks for the useful workshop Sarath, Good for getting started with Machine Learning - by Ravinder for Machine Learning & Artificial Intelligence in AWS - With Sarath Kumar organized by SHARATH KUMAR .

★★★★★   Mon, 30 Dec

Really a workshop was good to get started with IoT & AWS - by Radha for *Internet of things (IoT) in Amazon Web Services Workshop - With SarathKumar organized by SHARATH KUMAR* .

★★★★★   Tue, 12 Nov

The event was real good. Sharath has explained the things in the short span of time very well.I keep looking for more event like this - by Praveen S for *Machine Learning & Artificial Intelligence in AWS - With SarathKumar organized by SHARATH KUMAR* .

★★★★☆   Fri, 25 Oct

GREAT - by Raghu for *Internet of things (IoT) in Amazon Web Services Workshop - With SarathKumar organized by SHARATH KUMAR* .

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Best workshop for peoples one who looking to start their IoT career. - by Latha for *Internet of things (IoT) in Amazon Web Services Workshop - With SarathKumar organized by SHARATH KUMAR* .

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Details

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+ Show More

Map & Directions

CIDA #22, 1st A Cross Rd, Srinivasanagara, Hanumanthnagar, Banashankari Stage I, Banashankari, Bengaluru, Karnataka 560019, India

Reviews 4.6 ★ (5)

Write a Review

★★★★★   Wed, 19 Feb

It was insightful. Recommended for beginners!! - by Manoj for *Machine Learning & Artificial Intelligence in Amazon Web Services Workshop - With SarathKumar .*

★★★★★   Mon, 17 Feb

Thanks for providing Hands-on workshop, really informative & fun - by Prabhu for *Machine Learning & Artificial Intelligence in Amazon Web Services Workshop - With SarathKumar .*

★★★★★   Mon, 17 Feb

The workshop was more informative & Hands-on, had a good experience in exploring AWS machine learning services. - by Meena for *Machine Learning & Artificial Intelligence in Amazon Web Services Workshop - With SarathKumar .*

★★★★☆   Sun, 16 Feb

Register Now!