

SPECIALIZATION COURSE

MACHINE LEARNING OPERATIONS (MLOps)

+91 8940876397

sarath@psitrontech.com

7:00 PM to 11 PM IST
8:30 AM to 12:30 PM EST
2:30 PM to 6:30 PM CET

JANUARY

✓ 28th ✓ 29th

FEBRUARY

✓ 4th ✓ 5th
✓ 11th ✓ 12th
✓ 18th ✓ 19th
✓ 25th ✓ 26th

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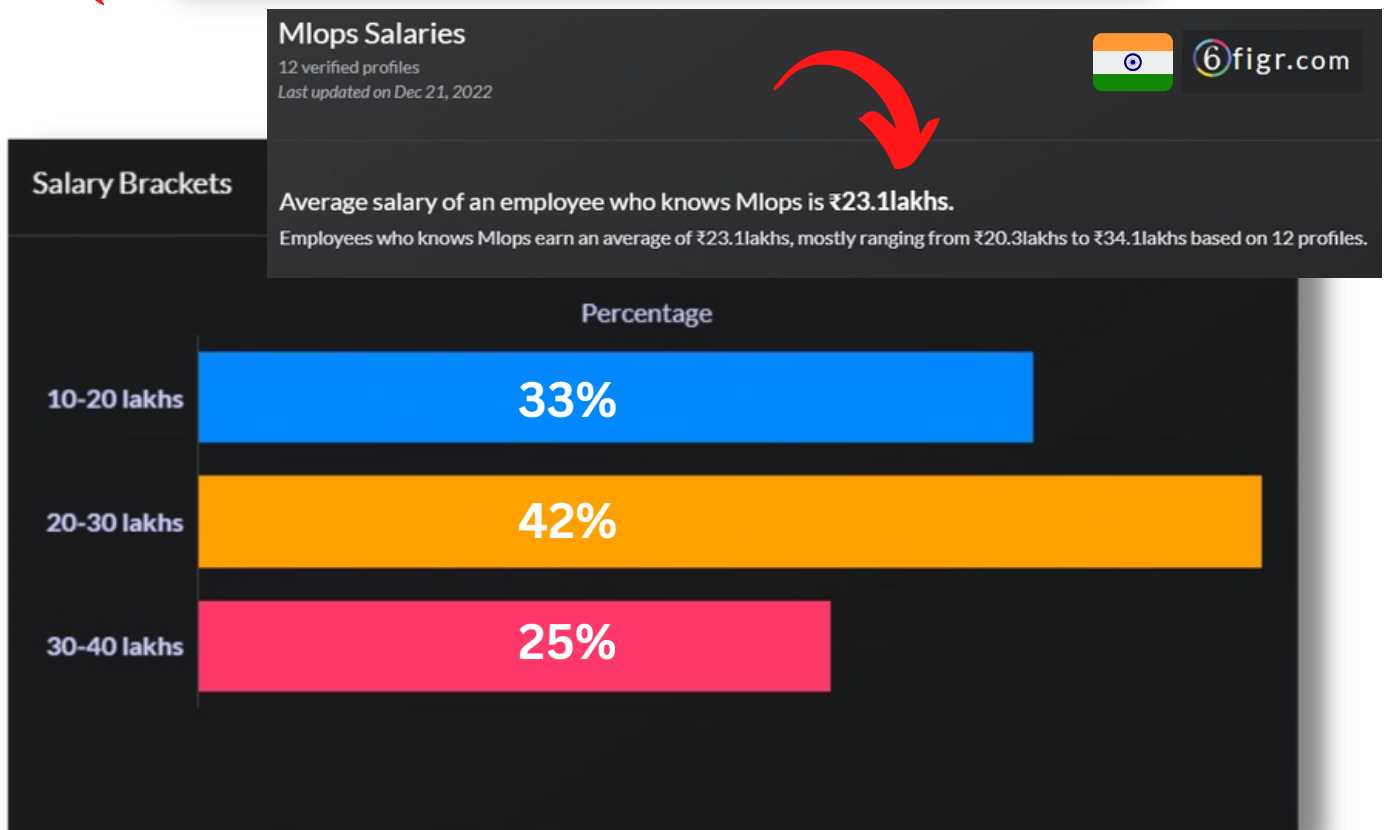
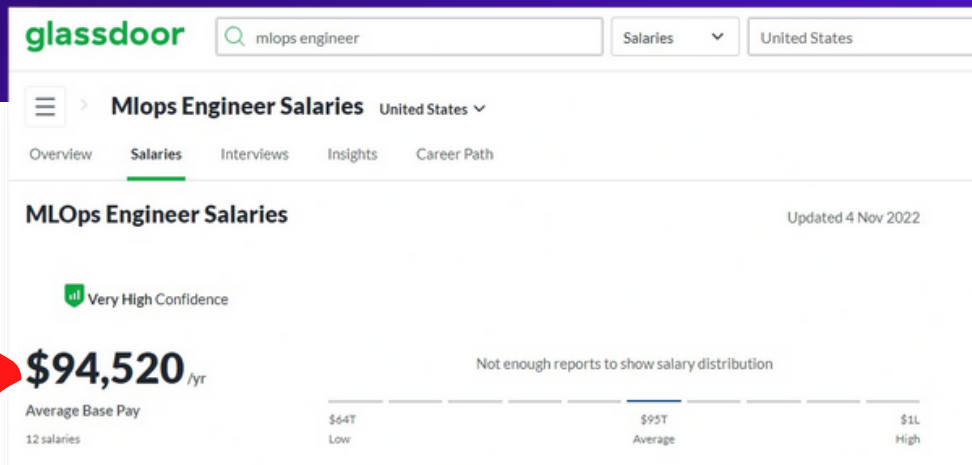
Every Saturday & Sunday



Machine Learning Operations(MLOps)

Hottest Job of 21st Century

Machine learning and artificial intelligence is a field that drives major innovations across different industries. It is predicted that in 2023, the AI market will reach \$500 billion, and in 2030, \$1,597.1 billion in size. This means that machine learning technologies will continue to be in high demand in the near future.



About us



5000+ Trained



100+ Workshops & courses



100+ Countries' Learners

Who is Psitron Technologies ? Why should you care?

About Psitron Technologies:

Psitron Technologies is an IoT and AI company. 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 finalist.



Psitron is supported by AWS
activate program



IoT interThrone winner

About Program

Looking for getting started with Hands-on **Machine Learning Operations (MLOps)** with a real-time project, then you've come to the right place. As per the market survey, **2023 is the year of MLOps** and would become the mandate skill set for Enterprise ML projects.

Corporates have been experimenting with machine learning models for a long time, **85%** of Machine Learning projects do not reach production. In addition, the MLOps have exponentially grown in the last few years. MLOps was estimated at **\$23.2 billion for 2019** and is projected to reach **\$126 billion by 2025**. Therefore, MLOps knowledge will give you numerous professional opportunities helps organizations to bring in real business value

Key Highlights

- **40 Hours** of Live sessions from Industrial Experts
- **50+** Live Hands-on Labs
- **5+ Real-time** industrial projects
- One-on-One Debugging with Industry Mentors

Program Pedagogy



Instructor led Training

Get trained by top industry experts



24*7 Technical Support

Speak to Subject Matter Experts anytime and clarify your queries instantly.



Projects and Exercises

Get real-world experience through Projects



Live Hands-on

Hands-on exercises, project work, quizzes, and capstone projects

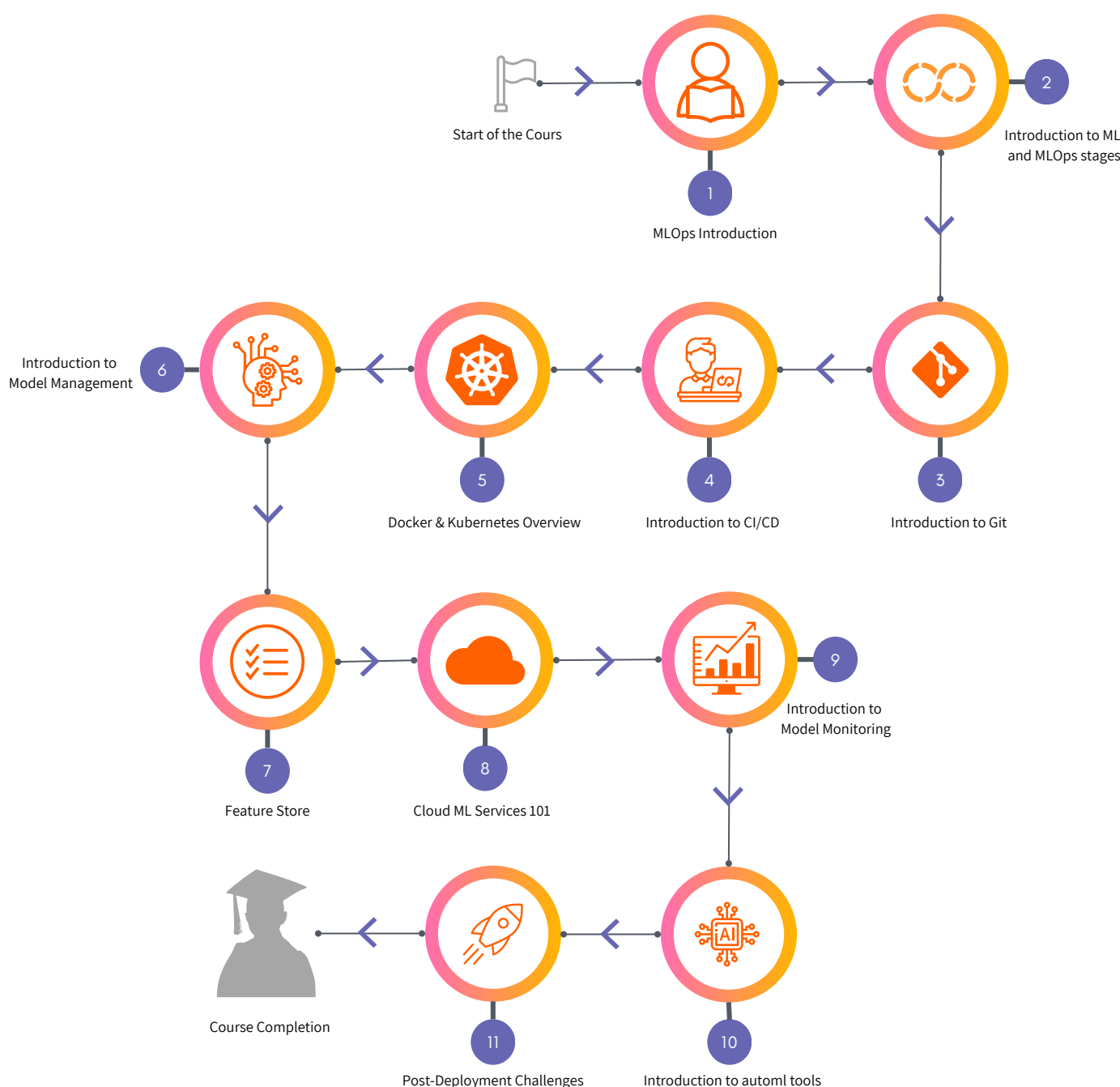


Peer Networking and Group Learning

Improve your professional network and learn from peers through our innovative Peer WhatsApp & community groups.

Who Can Apply for the Course?

- Data Scientists
- Data engineers & Data Analysts
- Research/Applied Scientists
- ML engineers
- DevOps engineers
- Aspiring MLOps Professionals and Enthusiasts
- Machine Learning professionals who want to deploy models to production
- Anyone who wants to learn Docker & Kubernetes, AWS, Azure, GCP, DVC, Feast, MLFlow etc
- Individuals interested in data and AI industry



Module 1

MLOps Introduction

- What is MLOps?
- Machine learning industrialisation challenges
- MLOps Motivation: High-level view
- MLOps challenges
- MLOps challenges similar to DevOps
- MLOps Components
- Machine Learning Life Cycle
- How does it relate to DevOps, AIOps, ModelOps, and GitOps?
- Major Phases - what it takes to master MLOps
- CI/CD in Production Case Study

Module 2

Introduction to ML and MLOps stages

- What are the various stages in the ML lifecycle
- MLOps Maturity Model
- Detailed MLOps and stages
 1. Versioning
 2. Testing
 3. Automation (CI/CD)
 4. Reproducibility
 5. Deployment
 6. Monitoring
- MLOps Architectures
 1. Architectures - Open Source tools
 2. Architectures - Cloud Native tools - AWS, GCP and Azure
 3. Comparison among cloud-native tools
 4. The cost-benefit approach of each architecture and MLOps maturity
- List of tools involved in each stage (MLOps tool ecosystem)
- Different Roles involved in MLOps (ML Engineering + Operations)

Module 3

Introduction to Git [Hands-on]

- Overview of Git
- Understanding branching strategies and REPO
- Standard GIT branching strategies(development, feature, bug, release, UAT)
- Practising important Git commands
- GitHub Action overview and working

Module 4

Introduction to CI/CD [Hands-on]

- Introduction to CI and CD
- CI/CD challenges in Machine Learning
- Steps involved in the CI/CD implementation in ML lifecycle and workflow
- A glimpse of popular Tools used in the DevOps ecosystem on the Cloud.

1.AWS DevOp

- AWS CodeCommit
- AWS CodePipeline
- AWS CodeBuild
- AWS CodeDeploy

2.GCP DevOps

- Cloud Source Repositories
- Cloud Run
- Cloud Build
- Cloud Deploy
- Artifacts Registry

3.Azure DevOps

- Azure Boards
- Azure Repos
- Azure Pipeline
- Azure Test Plans
- Azure Artifacts

Module 5

Docker & Kubernetes Overview [\[Hands-on\]](#)

- Docker Foundation
- Kubernetes Overview
- Kubernetes Architecture
 - 1.Nodes
 - 2.Control Plane
 - 3.API Server
- Kubernetes Resources
 - 1.Pod
 - 2.Deployment
 - 3.Replica
 - 4.Service
 - 5.Volumes (PVC)

Module 6

Kubernetes Deployment Strategy [\[Hands-on\]](#)

- Monitoring
- Liveness and Readiness Probes
- Labels and Selectors
- Deploying an ML Model using Docker and Amazon EKS

Module 7

Introduction to Model Management [\[Hands-on\]](#)

- What is a Model Management
- What are the various activities in Model Management
 - 1.Data Versioning
 - 2.Code Versioning
 - 3.Experiment Tracker
 - 4.Model Registry
 - 5.Model Monitoring

- A high-level overview of the below Model Management tools
 1. MLFlow
 2. DVC
 3. Git Large File Storage (LFS)

Module 8

Feature Store [\[Hands-on\]](#)

- Introduction to Feature Stores, SageMaker Feature Store, Vertex AI Feature Store, Databricks, Tecton, Feast, Hopsworks etc.
- Feast open source feature store
- Feature Store: Online Vs Offline
- Online Feature Store using DynamoDB
- Offline Feature Store using S3
- Monitor ML features using Amazon SageMaker Feature Store and AWS Glue DataBrew
- Monitor features programmatically
- Visualizing feature drift over time

Module 9

Cloud ML Services 101 [\[Hands-on\]](#)

- AWS SageMaker
 1. Introduction to Amazon Sagemaker
 2. Using Amazon S3 along with Sagemaker
 3. Amazon SageMaker Notebooks
 4. Notebook instance type, IAM Role & VPC
 5. Build, Train & deploy ML Model using Sagemaker
 6. Endpoint & Endpoint configurations
 7. Generate inference from deployed model

- AWS SageMaker Pipelines
 1. SageMaker Studio & SageMaker domain
 2. SageMaker Projects
 3. Repositories
 4. Pipelines & Graphs
 5. Experiments
 6. Model groups
 7. Endpoints
- GCP VertexAI
 1. Introduction of Vertex AI
 2. Gather, Import & label datasets
 3. Build, Train & deploy ML Solutions
 4. Manage your models with confidence
 5. Using Pipelines throughout your ML workflow
 6. Adapting to changes in data
 7. Creating models with Vertex AI and deploying ML models using ai-platform pipelines
- Azure MLOps
 1. Azure Machine learning studio
 2. Azure MLOps
 3. Azure ML components
 4. Azure MLOps + DevOps
 5. Fully automated end-to-end CI/CD ML pipelines

Module 10

Kubeflow Intro [\[Hands-on\]](#)

1. Kubeflow Introduction
2. Kubeflow- Who uses it
3. Kubeflow features
4. Kubeflow Fairing
5. Kubeflow Pipelines

6.Kubeflow use cases

7.Pipeline formation with Kubeflow

Module 11

Introduction to Model Monitoring [\[Hands-on\]](#)

- Importance Of Model Monitoring
- What are the various types of monitoring related to the model
- The architecture of monitoring ecosystem in AWS/Azure/GCP
 - 1.AWS Model Monitoring
 - 2.Azure Model Monitoring
 - 3.GCP Model Monitoring
- Optimize and Manage Models at the Edge
- Common Issues in ML Model Deployment
- Feedback Loop Role

Module 12

Introduction to automl tools [\[Demo\]](#)

- H2O MLOps
- Valohai
- Domino Data Lab
- neptune.ai
- iguazio
- W&B

Module 13

Post-Deployment Challenges [\[Hands-on\]](#)

- Post Deployment Challenges intro
- Post Deployment Challenges - ML Related
- Challenges when deploying machine learning to edge devices
- Post Deployment - Monitoring the Drift - Evidently
- Monitoring the Drift - Using Sagemaker
- Post Deployment Challenges - Software Engineering Related
- Common Issues in ML Model Deployment

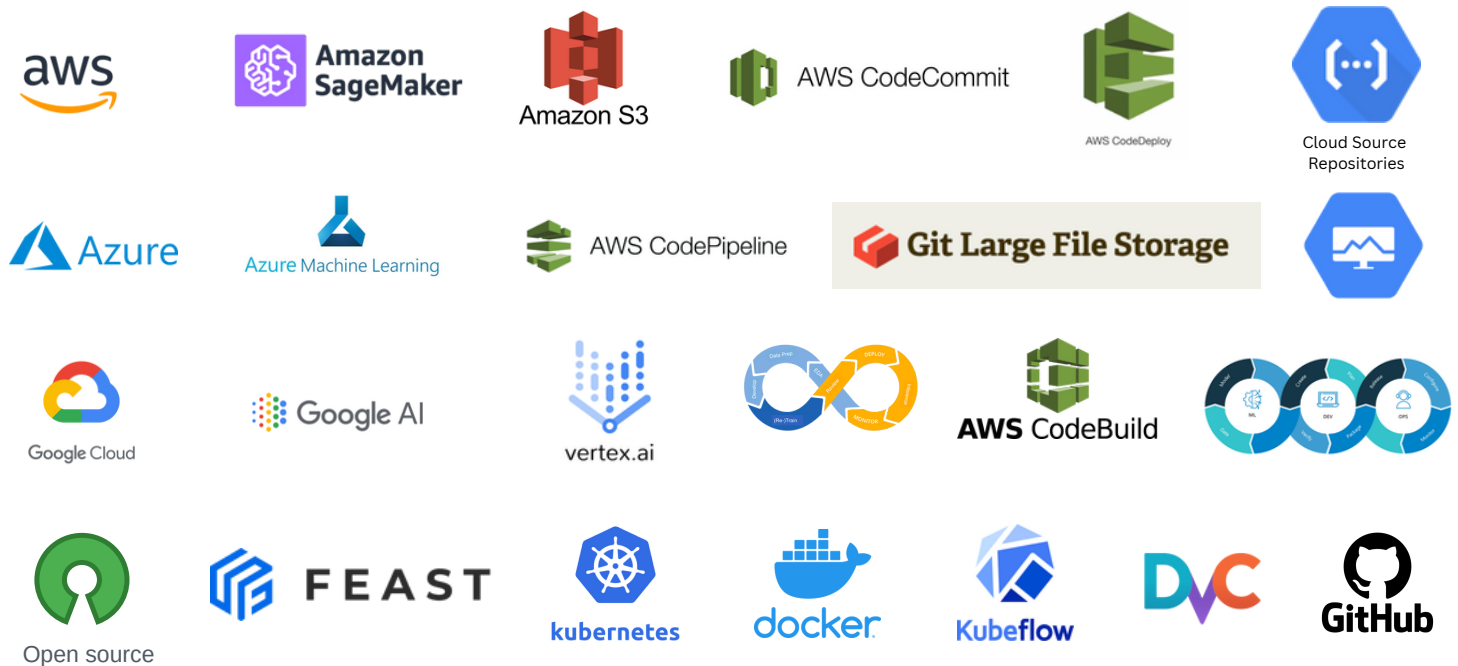


Program Curriculum

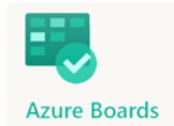
Skills to Master

- DevOps
- Git
- GitHub
- AWS
- AWS CodeCommit
- AWS CodePipeline
- AWS CodeBuild
- AWS CodeDeploy
- GCP
- Cloud Source Repositories
- Cloud Run
- Cloud Build
- Cloud Deploy
- Artifacts Registry
- Azure
- Azure Boards
- Azure Repos
- Azure Pipeline
- Azure Test Plans
- Azure Artifacts
- Kubernetes
- Amazon EKS
- MLFlow
- DVC
- Git Large File Storage (LFS)
- AWS SageMaker
- Vertex AI
- Feast
- DynamoDB
- S3
- AWS Glue
- SageMaker Pipelines
- Azure Machine learning studio
- Kubeflow
- Evidently

Tools to Master



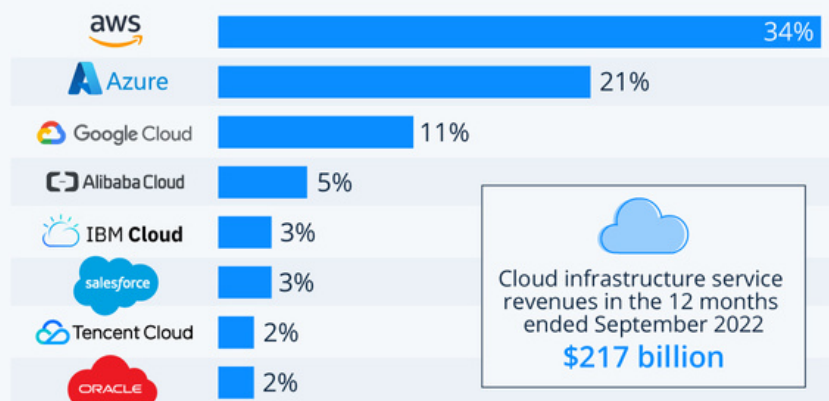
Program Curriculum



Why Cloud ?

Amazon, Microsoft & Google Dominate Cloud Market

Worldwide market share of leading cloud infrastructure service providers in Q3 2022*



* includes platform as a service (PaaS) and infrastructure as a service (IaaS) as well as hosted private cloud services

Source: Synergy Research Group



Program Fee

~~₹ 29,999/-~~

₹ 24,999/-

Basic

- ✓ Live Sessions
- ✓ Access to Recordings
- ✓ FREE Resources
 - eBooks
 - Webinars
 - Job Update
 - Interview questions
- ✓ Community Support
- ✓ Resume preparation
- ✓ -
- ✓ -

**Register
Now!**

~~₹ 34,999/-~~

₹ 29,999/-

Advanced

- ✓ Live Sessions
- ✓ Access to Recordings
- ✓ FREE Resources
 - eBooks
 - Webinars
 - Job Update
 - Interview questions
- ✓ Community Support
- ✓ Resume preparation
- ✓ 6 Month Job Support
- ✓ One free retake live session

**Register
Now!**

~~₹ 39,999/-~~

₹ 34,999/-

Advanced⁺

- ✓ Live Sessions
- ✓ Access to Recordings
- ✓ FREE Resources
 - eBooks
 - Webinars
 - Job Update
 - Interview questions
- ✓ Community Support
- ✓ Resume preparation
- ✓ 1 Year Job Support
- ✓ One free retake live session

**Register
Now!**

Only for batch of
20 lucky
participants

Program Fee

~~\$369~~
\$309

Basic

- ✓ Live Sessions
- ✓ Access to Recordings
- ✓ FREE Resources
 - eBooks
 - Webinars
 - Job Update
 - Interview questions
- ✓ Community Support
- ✓ Resume preparation
- ✓ -
- ✓ -

**Register
Now!**

~~\$429~~
\$369

Advanced

- ✓ Live Sessions
- ✓ Access to Recordings
- ✓ FREE Resources
 - eBooks
 - Webinars
 - Job Update
 - Interview questions
- ✓ Community Support
- ✓ Resume preparation
- ✓ 6 Month Job Support
- ✓ One free retake live session

**Register
Now!**

~~\$489~~
\$429

Advanced⁺

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 - Webinars
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 - Interview questions
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**Register
Now!**

Only for batch of
20 lucky
participants

Frequently Asked Questions

1. Do we need to attend all sessions?

Yes, All registered participants have to attend all the sessions.

2. Whether course recording video will be sent to participants?

Yes, Course recorded videos will be sent to all participants.

Note: You will have access for 6 Months after this course.

3. What about Certificate?

All registered participants will get a digital certification copy signed by Instructor from Psitron Technologies Pvt. Ltd.

4. What other opportunities?

Every registered percipient will be added to our community groups after this course so that you can explore more about ML/AI/MLOps/AWS/Azure/GCP.

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 a science & engineering background can attend this workshop, No programming expertise is needed.

Glimpse of our happy participants

eventbrite

★ 4.2
33 reviews

Events High



Reviews For Organizer 4.7★ (20)

MLOps Masterclass
Abhishek, Arunkumar, Asique ML, Balaji B...

now, will make sure we keep this group filled with all kinds of tech news/reads/job Opportunities/events on ML/AI, MLOps etc. 12:30 pm ✓

I would like to request you guys to rate our complete course considering Theory & Hands-on lab we did.

From 1 to 5:

1 will be lower and 5 will be higher

This will make us still stronger 😊 12:31 pm ✓

rohini ML Lead Aug22

You
I would like to request you guys to rate our complete course considering Theory & Hands-on lab we did....
Definitely it was great and informative session

5 ratings from my side 🙌★★★★★ 12:37 pm

MLOps Masterclass
Abhishek, Arunkumar, Asique ML, Balaji B...

9 August 2022
Prashant Shukla ML Lead Aug22
Nice session ★★★★★..
Thanks for sharing your wonderful knowledge with us. 1:20 pm

Pramod Autade ML Lead Aug22

You
I would like to request you guys to rate our complete course considering Theory & Hands-on lab we did....
Your Session was Amazing!.. 🙌🙌
★★★★★
Thanks and looking forward for full MLOps course from you. 1:22 pm

Harshith Vuppala ML Lead Aug22
Definitely it was eye opener session for MLOps. Looking for deep dive sessions in this area.
I will rate ★★★★★ for the walkthrough of the content and structuring for the beginners course. Really appreciate! 3:03 pm

Jincy C Mathew ML Lead Aug22
★★★★★ 3:05 pm

MLOps Masterclass
Abhishek, Arunkumar, Asique ML, Balaji B...

9 August 2022
Sumit Kaushik ML Lead Aug22
Thnx... 5 rating from me
★★★★★ 4:01 pm

Collins Onyemaobi ML Lead Aug22
Thanks 🙌🙌🙌 4:03 pm

Rama Kotipatruni ML Lead Aug22
It is 5 7:25 pm

Priyanka Verma ML Lead Aug22

You
I would like to request you guys to rate our complete course considering Theory & Hands-on lab we did....
It's 5. 🙌🙌🙌 10:37 pm

Arunkumar Duraimani ML Lead Aug22

You
I would like to request you guys to rate our complete course considering Theory & Hands-on lab we did....
5 ★★★★★ 10:42 pm

Nibin Joseph ML Lead Aug22
Please sent the link to your portal where we could give the ratings 10:51 pm

MLOps Masterclass
Abdulhakeem, Akash, Akula Kishore...

Submit your ratings 🙌

I would like to request you guys to Describe & rate our complete MLOps Masterclass considering Theory & Hands-on lab we did.

From 1 to 5:

1 will be lower and 5 will be higher

This will make us still stronger 😊 6:46 pm ✓

MLOps Masterclass
Abdulhakeem, Akash, Akula Kishore...

Maheshwari ML Lead Dec22

You
Submit your ratings 🙌
I would like to request you guys to Describe ...
5 11:21 pm

Saurjayan Bhattacharjee ML Lead May22
Please let me know if a session like this is conducted again. 12:35 am

Caroline ML Lead Dec22
5 9:17 am

Poonam Sawdekar ML Lead Nov22
5 11:09 am

Saurjayan Bhattacharjee ML Lead May22
Can you share the link of the all the materials and the recordings 12:39 pm

MLOps Masterclass
Abdulhakeem, Akash, Akula Kishore...

Chaitanya Pamarthy ML Lead Dec22

You
Folks,
You can simply mention your comments an...
5 11:17 pm

Chaitanya Pamarthy ML Lead Dec22

You
Folks,
You can simply mention your comments an...
5 - I have no background in ML, but I understood it well. Thanks for the Awesome explanation. 11:18 pm

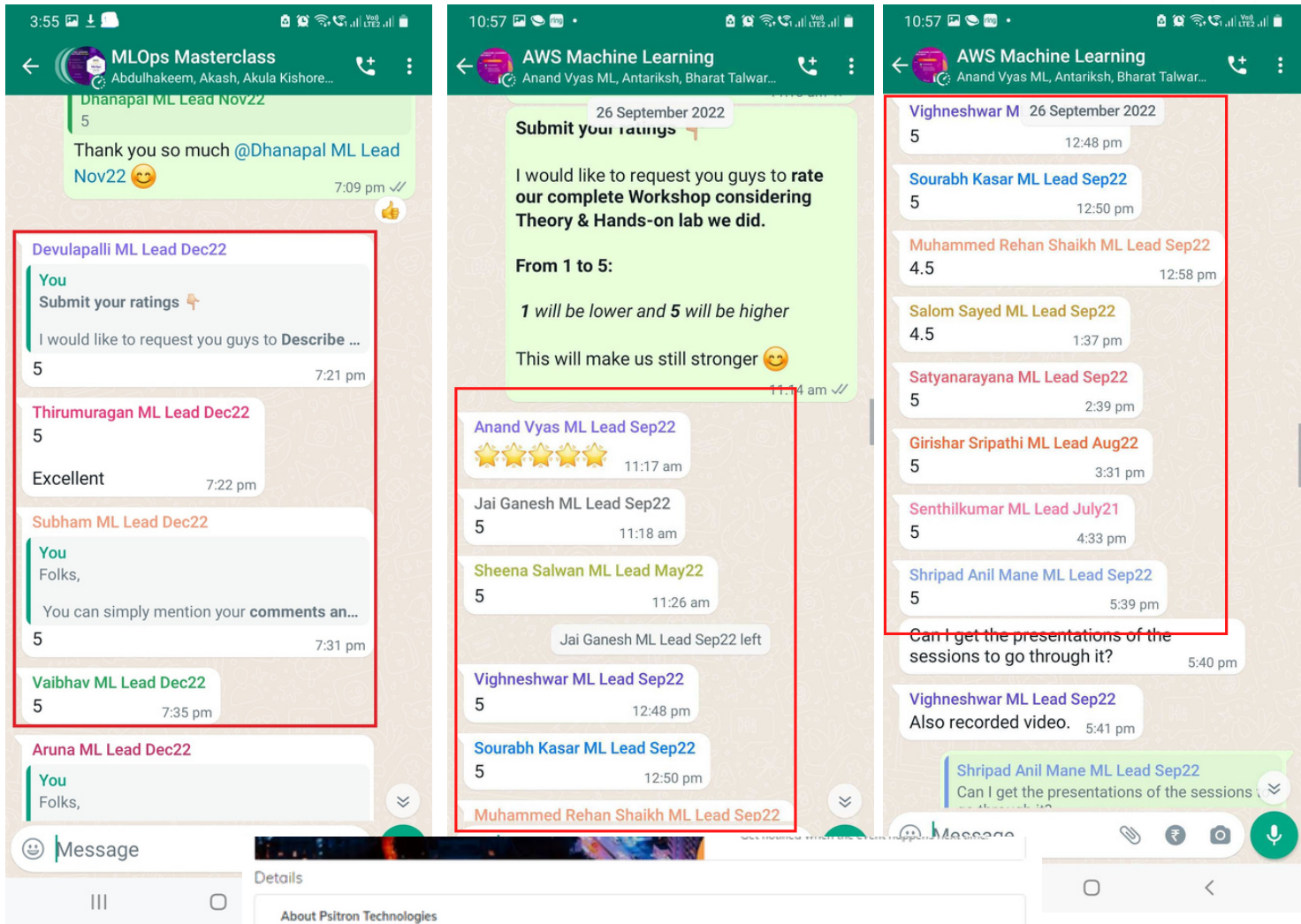
MLOps Masterclass
Abdulhakeem, Akash, Akula Kishore...

Submit your ratings 🙌

I would like to request you guys to Describe ...
Folks,
You can simply mention your comments and ratings from 1 to 5 in this Group itself. 7:03 pm ✓

Dhanapal ML Lead Nov22
5 7:05 pm

Glimpse of our happy participants



Details

About Psitron Technologies

Psitron Technologies is an IoT and AI startup. 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.

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.

[+ 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.

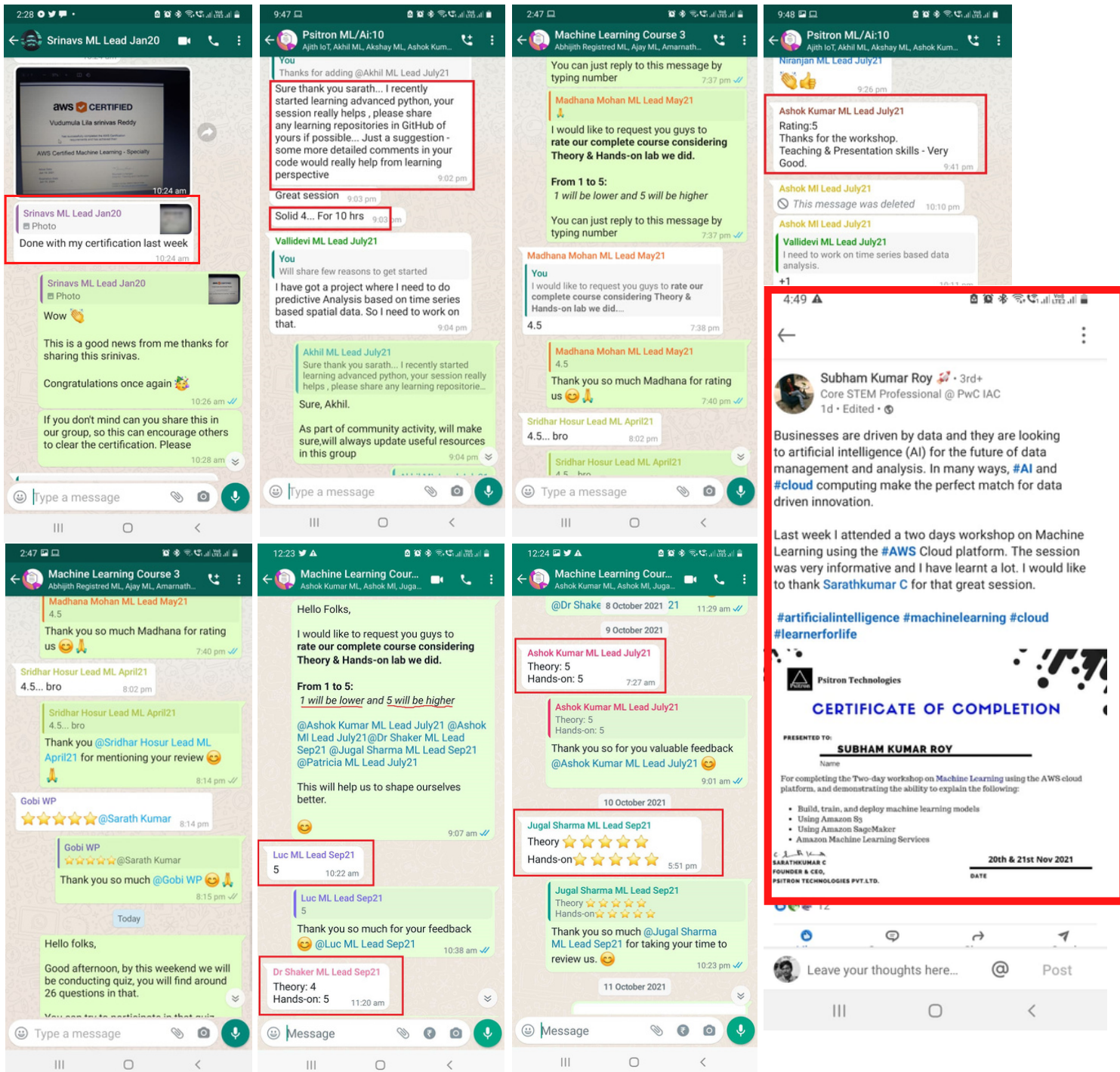
★★★★★ Mon, 17 Feb

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.

Glimpse of our happy participants



Register Now

Glimpse of our happy participants

★★★★☆

Sun, 16 Feb

Explained in very simple language. Looking forward for more workshops - by Usha for Machine Learning & Artificial Intelligence in Amazon Web Services Workshop - With SarathKumar .

[← Show Less](#)

Reviews For Organizer **4.7 ★** (20)

[Write a Review](#)

★★★★★

Wed, 19 Feb

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★★★★★

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★★★★★

Mon, 17 Feb

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★★★★☆

Sun, 16 Feb

Got a good intro to AWS. It was great. - by Kiran Pai for Machine Learning & Artificial Intelligence in Amazon Web Services Workshop - With SarathKumar organized by SHARATH KUMAR .

★★★★☆

Sun, 16 Feb

Explained in very simple language. Looking forward for more workshops - by Usha for Machine Learning & Artificial Intelligence in Amazon Web Services Workshop - With SarathKumar 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

★★★★★

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 .

★★★★★

Fri, 04 Oct

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 .

★★★★★

Fri, 04 Oct

Great workshop. Had a good experience connecting IoT device to cloud. - by Manjunath for Internet of things (IoT) in Amazon Web Services Workshop - With SarathKumar organized by SHARATH KUMAR .



Contact Us

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 www.psitrontech.com

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

