

ML Academy Training Program

Jan-Feb 2022

ML Academy [MENA 60 Days On Tech Challenge]

Agenda

- **Program Overview**
 - Info session
- **Plan Overview**
- **Q&A**

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What is the program?

ML Academy will provide you an opportunity to kickstart your career in Machine Learning in general and Tensorflow especially by getting hands-on practice 😎 The training will cover a variety of topics, from Building classical machine learning models, Deep learning, preparation for the tensorflow exam and mentorship before taking that exam.

Benefits of passing TF Exam:

- **Learn something new.** Increase your proficiency in machine learning,
- **Receive community recognition.** Be recognized by others in the global TensorFlow community.
- **Showcase your skills.** Share your certificate on your resume and social networking platforms like LinkedIn

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PLAN:

	Prep		week-0		
		Will be presented	Jan 12	Jan 13	
		Session #	Session -1	Session 0	
		Lecture / workshop duration	4 h	4 h	
		Session Content	Intro to python Programming	Python oriented to ML	
				Numpy + Pandas	

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		Week 1		
Will be presented	Jan 16	Jan 17	Jan 19	Jan 20
Session #	Session 1	Session 2	Session 3	Session 4
Lecture / workshop duration	4 h	4 h	4 h	4 h
Session content	Session content	Session content	Session content	Session content
	Machine Learning Concepts	First Step with TensorFlow	validation set	logistic regression
	Reducing Loss	Generalization	feature crosess	classification
	ML Fundamentals	Data Exploration	regularization	
	Theory behind Machine Learning	Data Visualization		neural network
	Classical Machine Learning Algorithms			training neural nets

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		week2		
Will be presented	Jan 23	Jan 24	Jan 26	Jan 27
Session #	Session 5	Session 6	Session 7	Session 8
Lecture / workshop duration	4 h	4 h	4h	4h
Session content	Session content	Session content	Session content	Session content
	static-vs-dynamic-inference	Data modeling	Computer Vision	NLP-Tokenization
	static-vs-dynamic-training	Tensorflow datasets, training pipelines	CV in real world	NLP-Word Representation:
	data-dependencies		image processing	Embeddings
			CNN	
			data augmentation	
			transfer learning	

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		Week3	
Will be presented	Jan 30	Jan 31	Feb 2
Session #	Session 9	Session 10	Session 11
Lecture / workshop duration	4h	3h	4h
Session content	Session content	Session content	Session content
	NLP-sequence models	Project 1 correction	Time series
	NLP- LSTM		forecasting
	NLP-convolutional		AI and AI ethics
	Text generation		

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TF Exam Prep			week4		
	Will be presented	Feb 6	Feb 7	Feb 9	Feb 10
	Session #	Session 11	Session 12	Session 13	Sessin 14
	Lecture / workshop duration	3h	3h	3h	3h
	Session content	Session content	Session content	Session content	Session content
		TF Dev Cer Prep	TF Dev Cer Prep	TF Dev Cer Prep	TF Dev Cer Prep
		Neural nets assignments	CV weeks assignments	NLP weeks assignments	Time series assignments

