

Networking: Deep Learning

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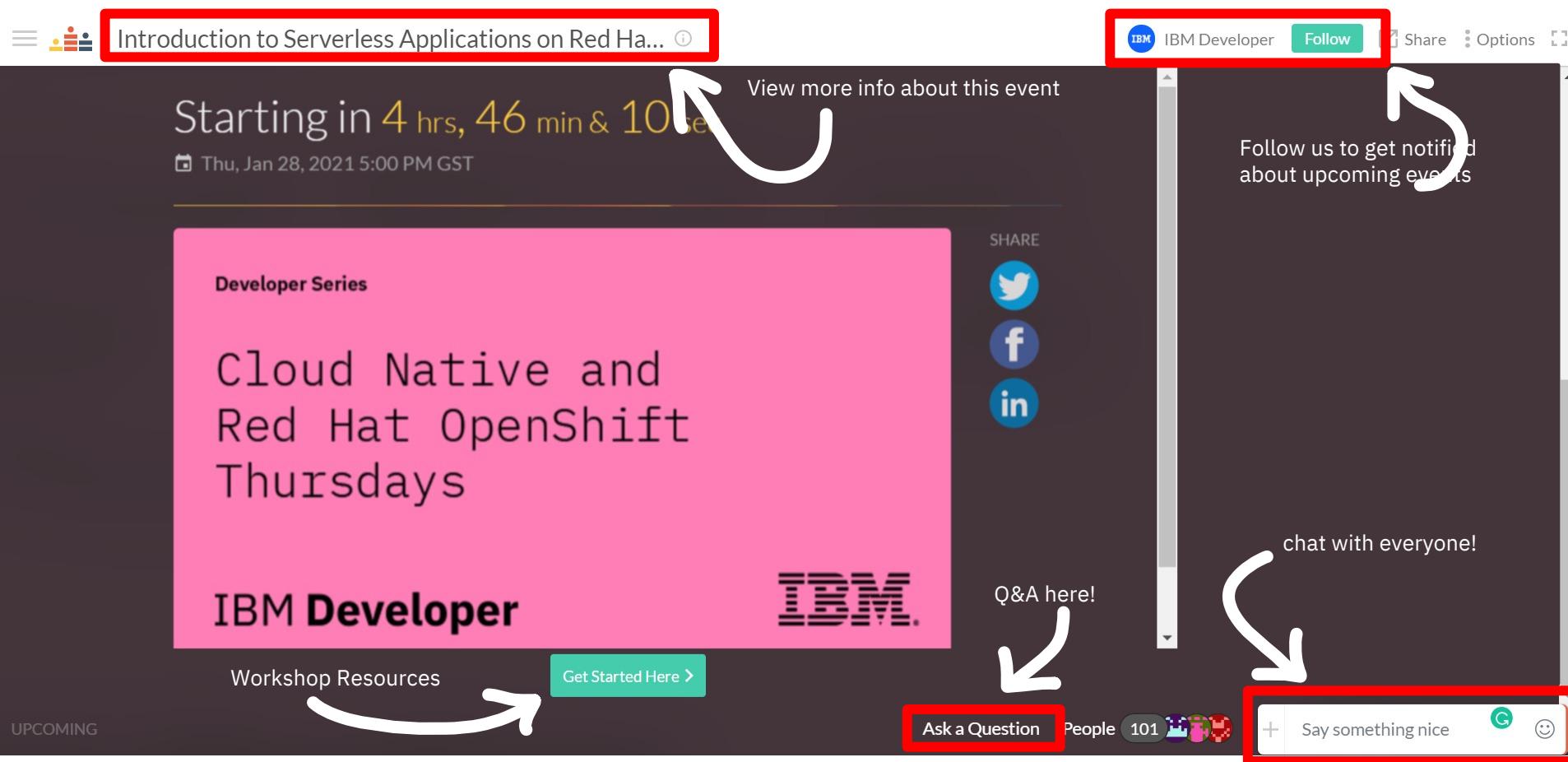
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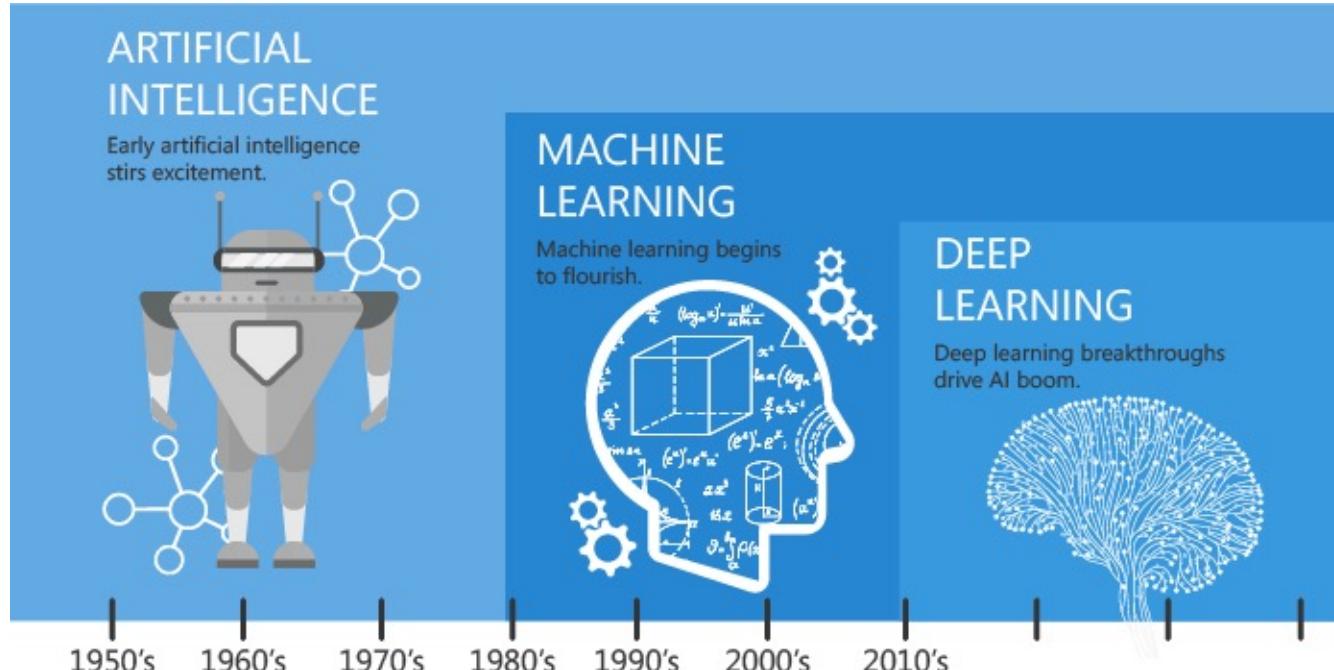
Let's get started

- Sign up/Log in to your IBM Cloud Account
<https://ibm.biz/MEA-DataAI>





What is Deep Learning?

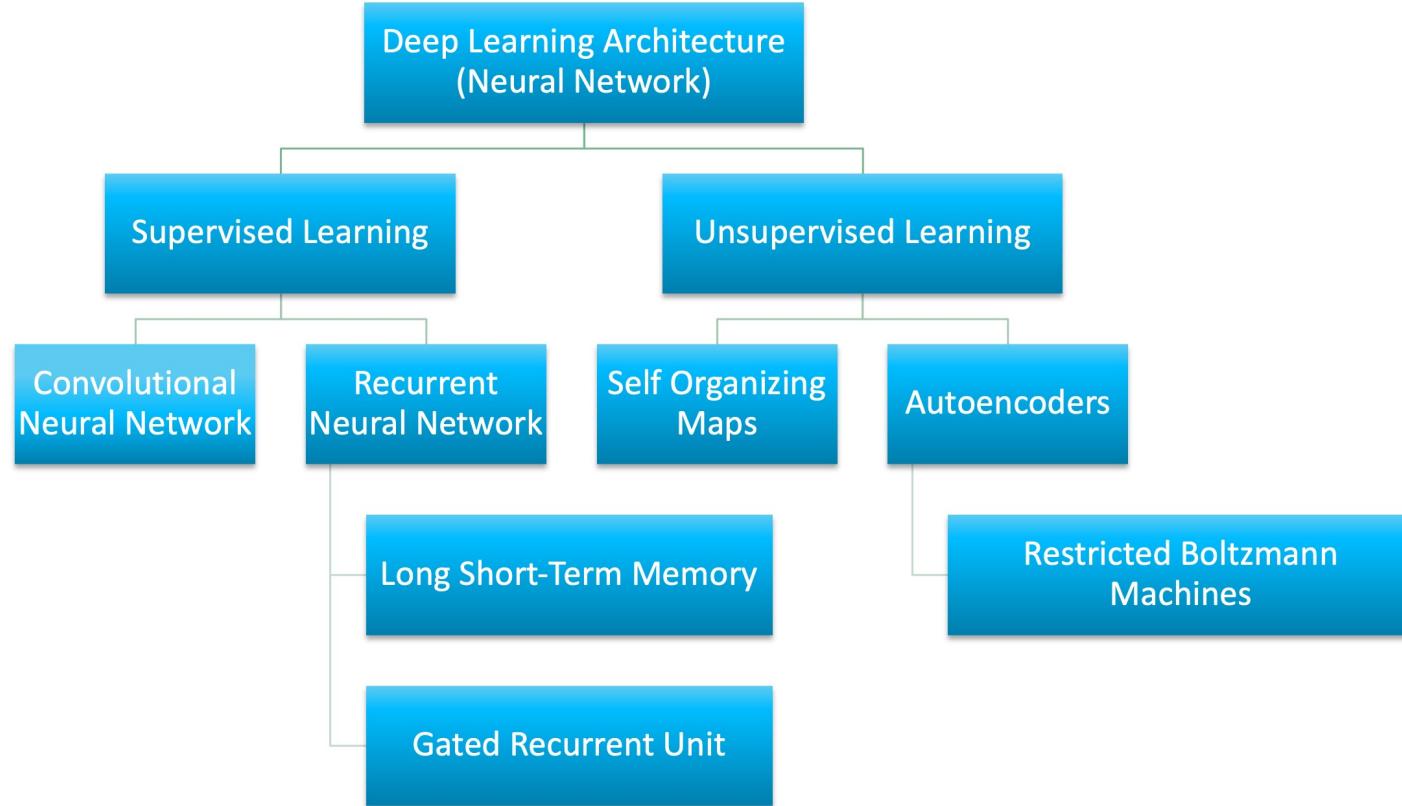


Since an early flush of optimism in the 1950's, smaller subsets of artificial intelligence - first machine learning, then deep learning, a subset of machine learning - have created ever larger disruptions.

<https://blog.devitpl.com/learning-machine-learning/>



Deep Learning Algorithms



Deep Learning Algorithms

Convolutional Neural Networks (CNNs)

Applications:

- Satellite images
- process medical images
- forecast time series

Long Short Term Memory Networks (LSTMs)

Applications:

- Speech Recognition
- Music Composition
- Pharmaceutical development

Recurrent Neural Networks (RNNs)

Applications:

- Image Captioning
- NLP
- Handwriting recognition

Generative Adversarial Networks (GANs)

Applications:

- Realistic images
- Create photographs of human faces
- Render 3D objects

Self Organizing Maps (SOMs)

Applications:

- Help users understand high-dimensional information

Tools & Frameworks for Deep Learning



Digital Developer Conference

Data & AI

Learn industry-recognized data and AI skills from IBM experts, partners, and the worldwide community

Register for free and get ready to build smart and secure data and AI solutions with a focus on experimentation, eminence, and education. The IBM Developer ecosystem of experts, enthusiasts, and client partners have created an experience to explore AI-centric solutions and platforms—dedicated to the worldwide community of developers, data scientists, and academia. You will also find regional and topical events where you can meet like-minded people—as well as a data science course with a badge.

Conference
begins

June 8

Learn more and register for free at ibm.biz/devcon-ai.



On-demand replays available after the event

What is Call for Code?

Call for Code invites developers and problem solvers around the world to **build and contribute to sustainable Open-Source software solutions, that address social and humanitarian issues**, while ensuring solutions are deployed to make a **real difference**.



Call for Code
Creator



Call for Code
Founding Partner



Call for Code
Charitable Partner



Call for Code
Program Affiliate

Call for Code has become the only global, **always-on** tech for good Open-Source platform to deploy & scale top projects through a host of offerings:

Why join?

- Skill Building
- Social Good
- Ideas to Action
- Community (400K+ developers, 179 nations, 15K+ applications)

Sponsors



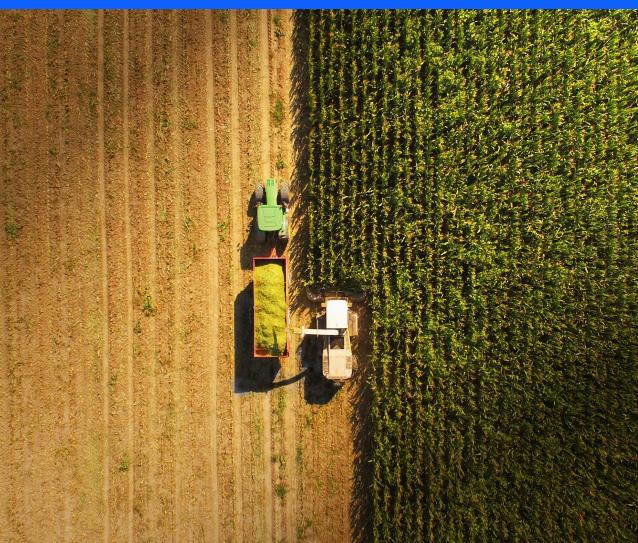
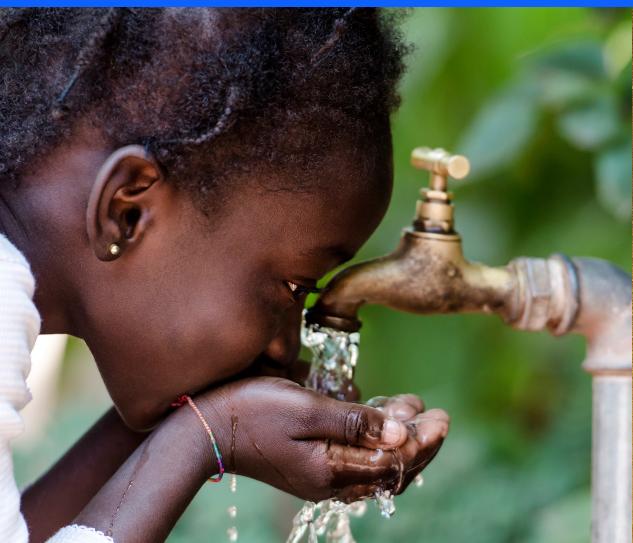
Awards

200K USD for Global Challenge winner

10K USD for University Challenge winner

5K USD for Middle East and Africa region winner ⁹

2021 Call for Code fighting CLIMATE CHANGE



Clean Water and Sanitation

Water is the natural resource that is most threatened by climate change and a prerequisite for life on earth. From intelligent solutions for small farmers to recycling showers, **Technology** can make a significant impact on the **availability of water and its consumption**.

Zero Hunger

135 million people suffer from acute hunger, with climate change a major contributing factor. **Technology** can **help grow more crops in areas on the edge of drought** or quickly **distribute perishables** from small stores to local homeless shelters.

Responsible Production and Consumption

Worldwide consumption and production drives the global economy yet is inextricably linked to the environment. **Technology** can help **make recommendations on energy efficiency** to highlighting the carbon footprint of online purchases.

Resources and Events

Call for Code Main Page: ibm.biz/callforcode

FAQs: callforcode.org/faq/

Starter Kits: [Zero Hunger, Clean Water and Sanitation, Responsible production and green consumption](#)

Office hours **Every Monday**
from 6 PM to 7 PM GST (Dubai time)
crowdcast.io/e/mea_cfc_officehours

Join our MEA Call for Code Slack channel:
ibm.biz/mea_cfc_slack_channel



Get notified for upcoming Call for Code events by following our Meetup Page:
meetup.com/IBM-Cloud-MEA/



Go to our Crowdcast page for replays of previous events that could help you:
crowdcast.io/ibmdeveloper

Resources

- ❖ **IBM Developer:** <https://developer.ibm.com/>
- ❖ **Meetup:** <https://www.meetup.com/IBM-Cloud-MEA/>
- ❖ **Learning:**
 - ❖ <https://cognitiveclass.ai/courses/introduction-deep-learning>
 - ❖ <https://learn.ibm.com/>
 - ❖ <https://developer.ibm.com/learningpaths/get-started-with-deep-learning/deep-learning-architectures/>

Thank you

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