Bringing the best of Containers and Machine Learning together
Vidyasagar Machupalli, Technical Product Manager, IBM
http://vmac.xyz  | @VidyasagarMSC
Demo

Let me in, I want to see with my own eyes!

No, it's no use...

Aha! I knew it! Servers!

Um...

And these? Aren't these hard drives? And these cables?

You told me I'd be getting SERVERLESS architecture!

Yeah...

You've been caught red handed! What a scam!

CommitStrip.com
Cloud Functions
Functions as a Service (FaaS) platform to execute code in response to events
Write your code in the language you like the most

Multi-language Support
- JS/NodeJS 6
- Swift 3
- Java
- Docker
- Python 3
- PHP

Community Efforts
- Haskell
- Scala
- Cobol
- ...
Expose your actions as API endpoints
Best usage of Containers

Source: https://medium.com/openwhisk/squeezing-the-milliseconds-how-to-make-serverless-platforms-blazing-fast-aea0e9951bd0
Future???
**Watson Studio**

Built for AI teams – enabling team productivity and collaboration

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**Tanya**  
**Domain Expert**

**Her Job:**  
To transfer knowledge to Watson for a successful user experience.

**What she does:**  
- Range of domain knowledge and uses that to teach Watson and develop a custom models.
- As Tanya gains more experience, she optimizes her knowledge to teach Watson to design better end-user experiences.

**Sometimes known as:**  
Subject matter expert, content strategist.

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**Mike**  
**Data Scientist**

**His Job:**  
Transform data into knowledge for solving business problems.

**What he does:**  
- Runs experiments to build custom models that solve business problems.
- Use techniques such as Machine Learning or Deep Learning and works with Tanya to validate success of trained models.

**Sometimes known as:**  
ML/DL engineer, Modeler, Data Miner

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**Ed**  
**Data Engineer**

**His Job:**  
Architects how data is organized and ensures operability

**What he does:**  
- Builds data infrastructure and ETL pipelines. Works with Spark, Hadoop, and HDFS.
- Works with data scientist to transform research models into production quality systems.

**Sometimes known as:**  
Data infrastructure engineer

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**Deb**  
**The Developer**

**Her Job:**  
Builds AI application that meets the requirements of the business.

**What she does:**  
- Starts PoCs which includes gathering content, dialog building and model training.
- Focus is on app building for the team or company to use. Will handle ML Ops as needed.

**Sometimes known as:**  
Front-end, back-end, full stack, mobile and or low-code developer
Watson Studio
Supporting the end-to-end AI workflow

**Connect & Access Data**
- **Connect** and discover content from multiple data sources in the cloud or on premises. Bring **structured** and **unstructured** data to one toolkit.

**Search and Find Relevant Data**
- Find data (structured, unstructured) and AI assets (e.g., ML/DL models, notebooks, Watson Data Kits) in the **Knowledge Catalog** with intelligent search and giving the right access to the right users.

**Prepare Data for Analysis**
- Clean and prepare your data with **Data Refinery**, a tool to create data preparation pipelines visually. Use popular open source libraries to prepare unstructured data.

**Build and Train ML/DL Models**
- **Democratize** the creation of ML and DL models. Design your AI models **programmatically** or **visually** with the most popular **open source** and IBM ML/DL frameworks or leverage transfer learning on **pre-trained** models using **Watson tools** to adapt to your business domain. Train at scale on **GPUs** and **distributed** compute.

**Deploy Models**
- Deploy your models easily anywhere and have them **scale automatically** for online, batch or streaming use cases.

**Monitor, Analyze and Manage**
- Monitor the performance of the models in production and trigger automatic retraining and redeployment of models. Build **Enterprise Trust** with Bias Detection, Mitigation Model **Robustness** and Testing Service Model **Security**.
Let’s see in action…

Oh... you’ve used AI & ML all along?

Tell me more...
The dataset

Iris Versicolor

Iris Setosa

Iris Virginica
What you just saw

https://bit.ly/2qGp57o

Signup for IBM Cloud
https://bluemix.net

Solution Tutorials
http://ibm.biz/solution-tutorials
Thank you
GREAT INDIAN DEVELOPER SUMMIT 2019
Conference: April 23-26, Bangalore

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