

GETTING STARTED WITH MACHINE LEARNING

Ian Schröder
Specialist Sales Middleware, Red Hat
jschroed@redhat.com

Keith Tenzer
Solutions Architect, Red Hat
ktenzer@redhat.com

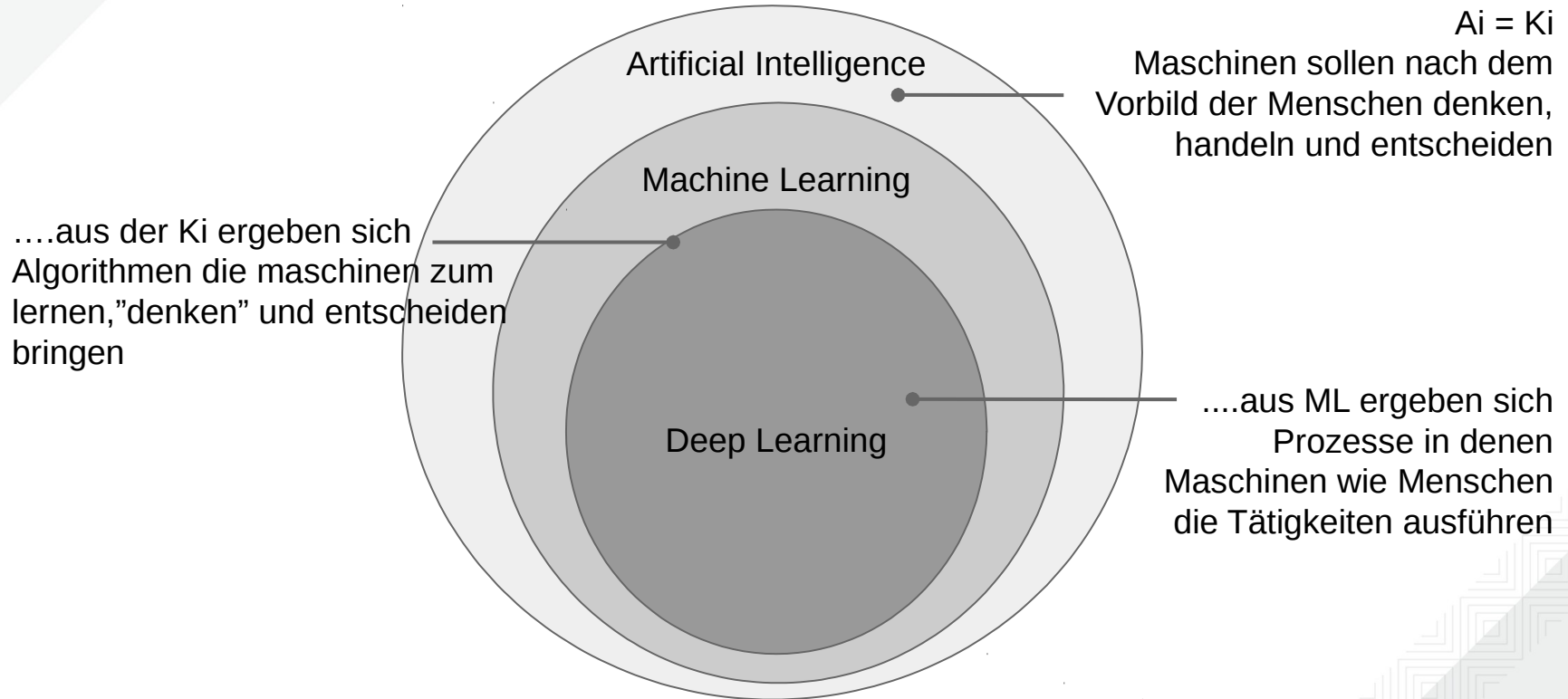
AGENDA

Was ist Machine Learning?

3 Thesen

DEMO

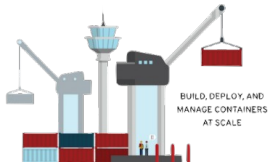
Was ist MACHINE LEARNING?



3 Thesen



- Machine Learning ist offen und für Jeden zugänglich
 - Machine Learning ist nicht den CloudProvidern vorbehalten
- Machine Learning braucht Zugang zu Daten und Runtimes
 - Übernehmen Sie die Kontrolle mit Containern.
 - Agile microservice frameworks, Apps und runtime ermöglichen Flexibilität
 - Cloud-to-Cloud einschließlich On-Premise bietet die größte Vielfalt
 - Verbinden Sie verschiedenste Data-Lakes um die richtigen Antworten zu erhalten
- Machine learning kann einfach sein



MACHINE LEARNING Beispiele...

Artificial Intelligence, Deep Learning, Machine Learning: Changing the World!

Healthcare & Life Sciences	Financial Services	Government	Manufacturing
Using custom frameworks, Caffe & TensorFlow for Molecular Dynamics, pattern recognition and drug interactions	Insurance: Using TensorFlow for claim adjustment and risk analysis Fraud: Using TensorFlow for risk evaluation and fraud	Using TensorFlow to plan for urban emergencies/deasterns and allocation of emergency services	Using TensorFlow deep learning to create smart factories addressing preventative maintenance

IDC: in

Retail

Using TensorFlow, T for image recognition and consumer analy

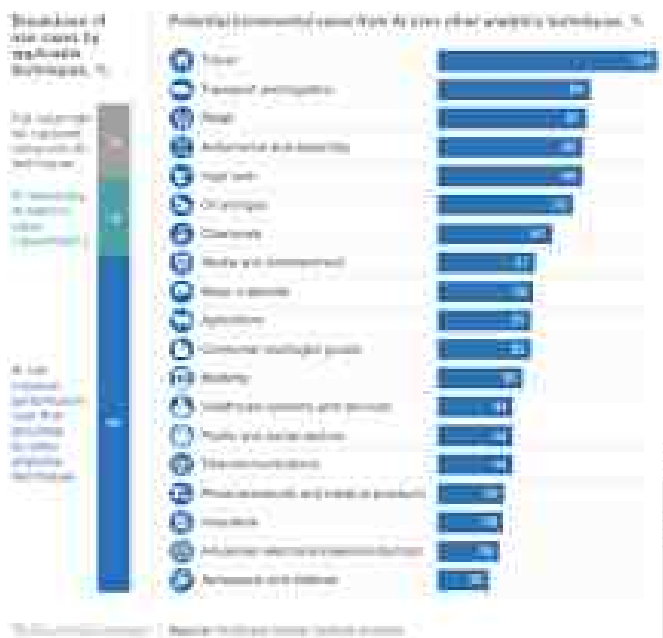
Slide Source: Dell E

Artificial Intelligence

Contact: info@venturescanner.com to see all 957 companies

Venture Scanner

It runs the benchmarks of our 100 cases, artificial intelligence (AI) can improve performance beyond that provided by other analytics techniques.





MACHINE LEARNING Ihre Potentiale?

Anomaly

Detection

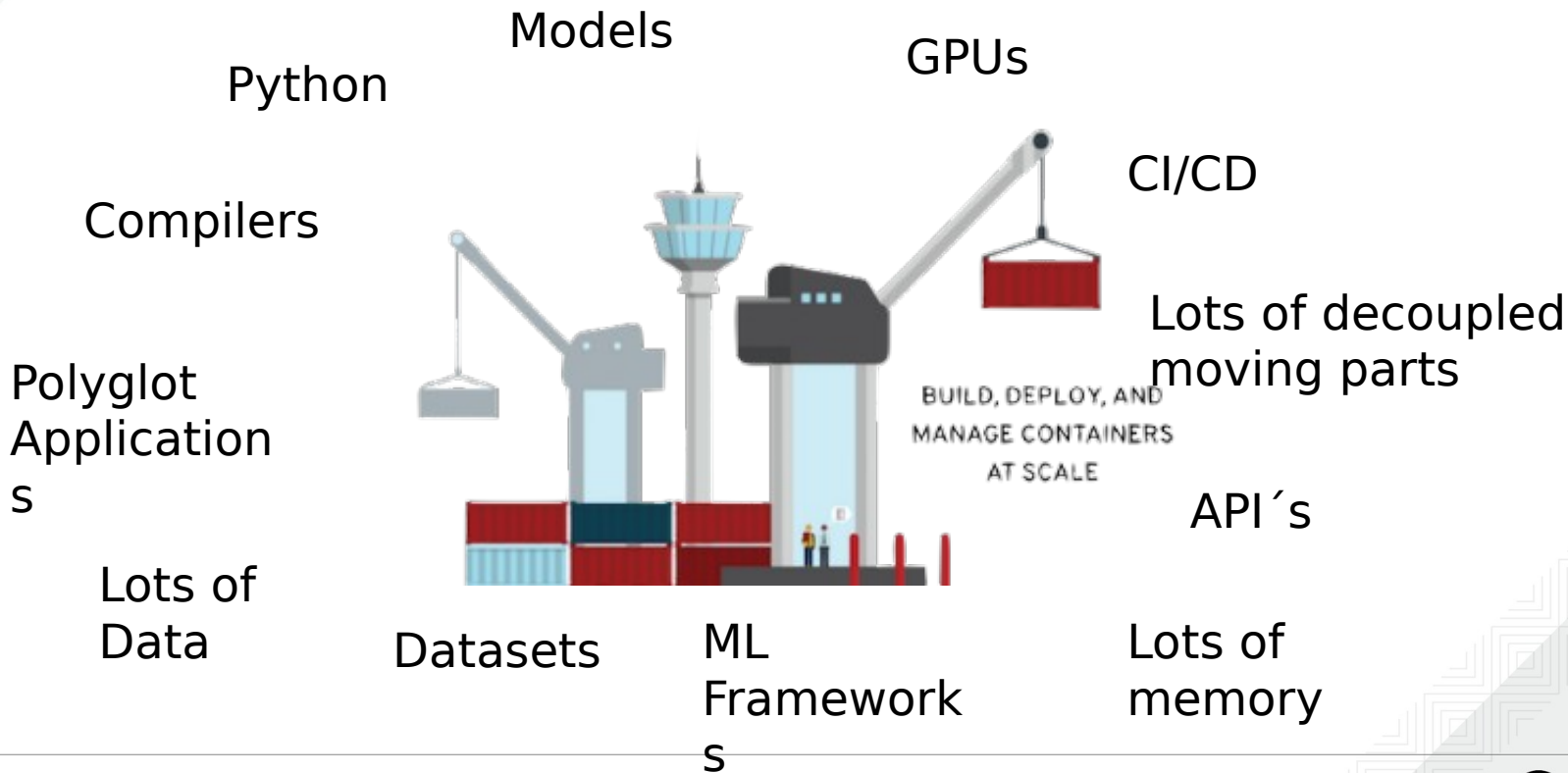


Predictive

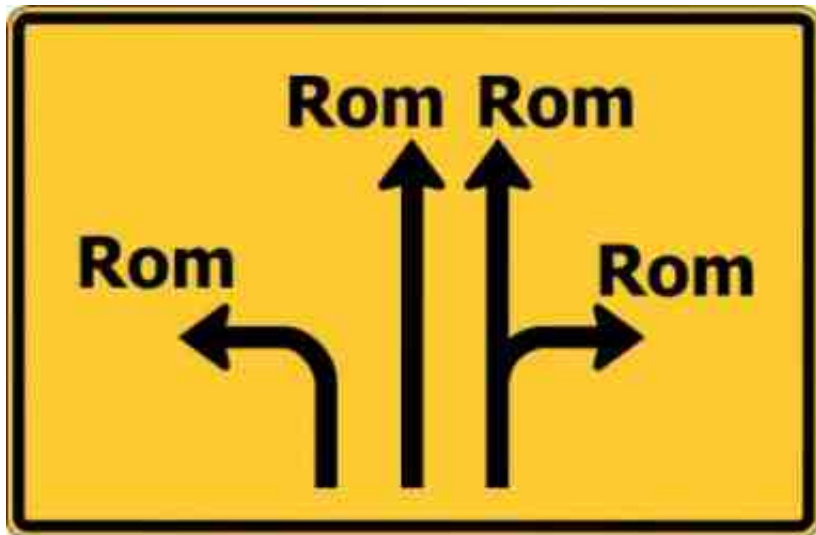




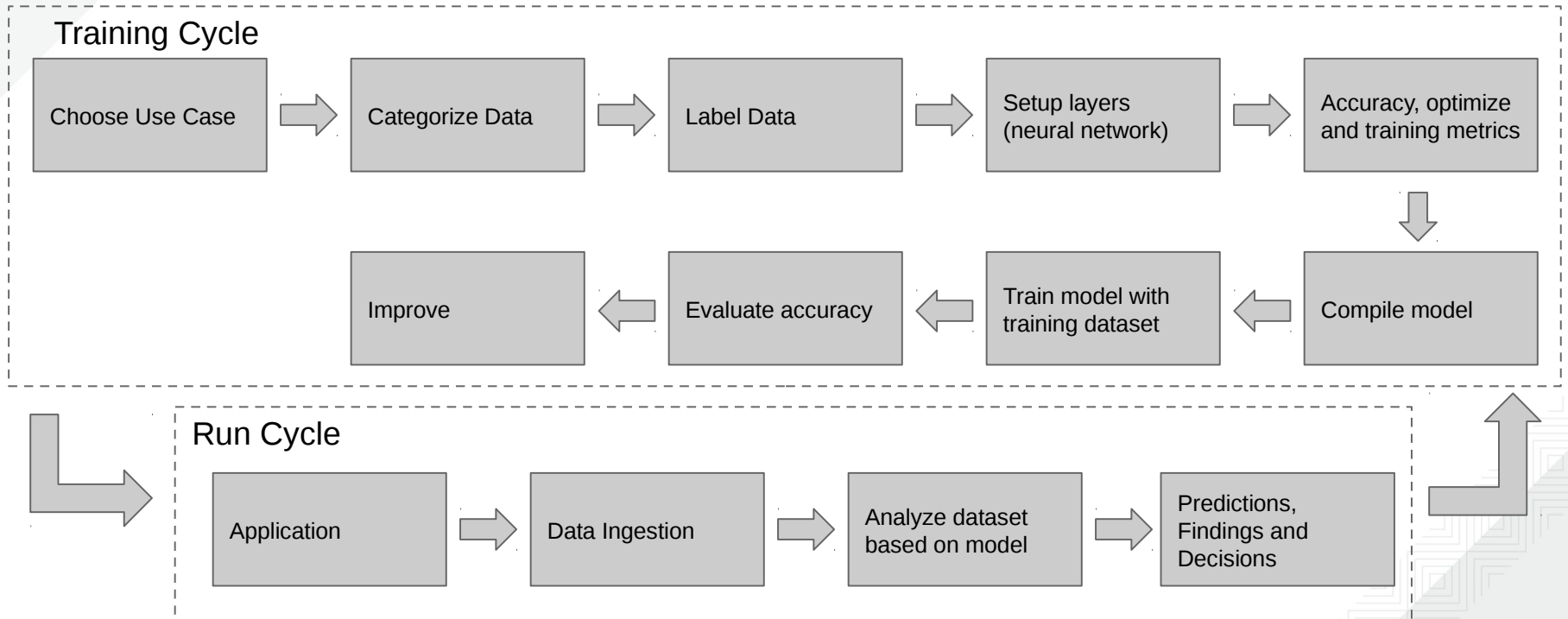
Wir brauchen Container



WIE MACHINE LEARNING FUNKTIONIERT



WIE MACHINE LEARNING FUNKTIONIERT





DEMO

“Build a Siri/Echo/Alexa”

RESOURCCEN

- GitHub Repository -
<https://github.com/ktenzer/openshift-ml-demo>
- Blog -
<https://keithtenzer.com/2018/12/14/getting-started-with-machine-learning/>





redhat.®

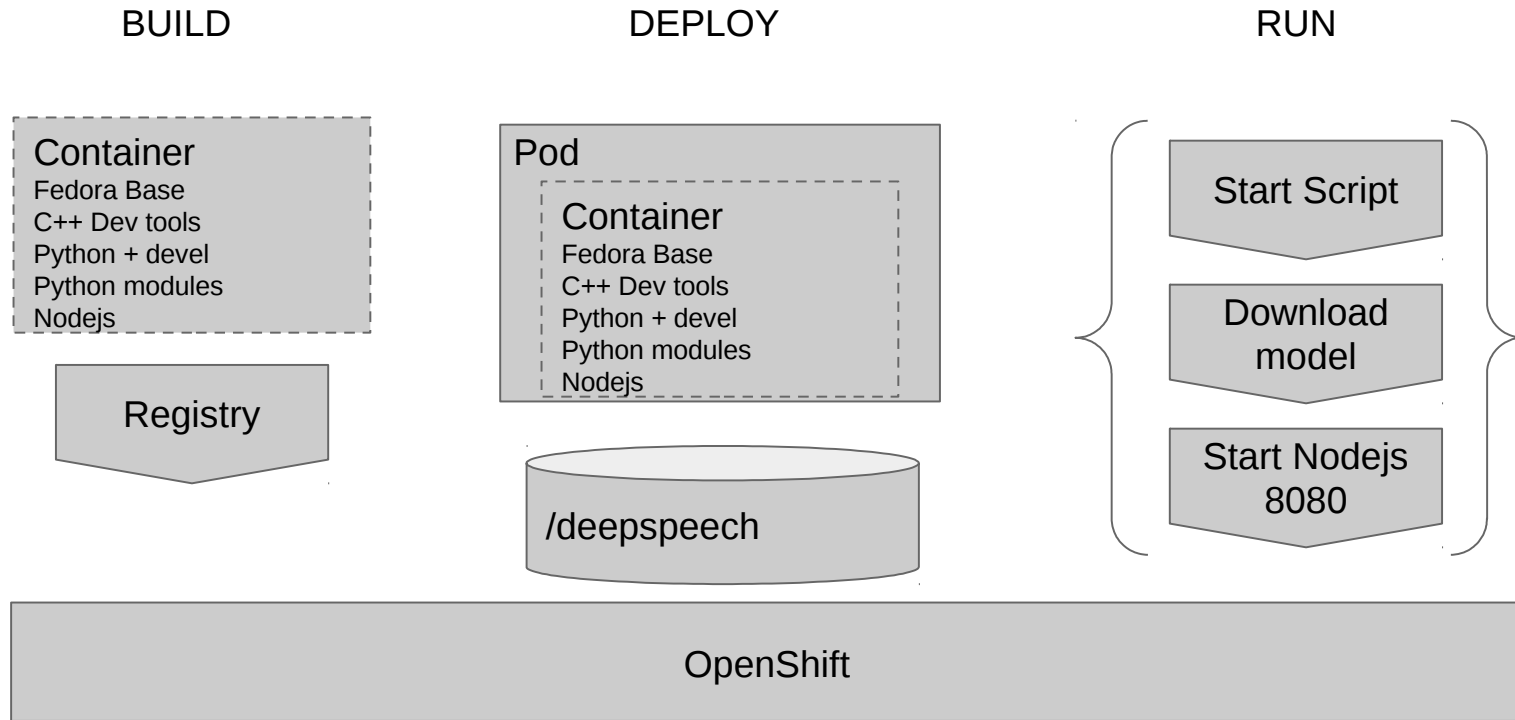


RED HAT
FORUM
Europe, Middle East & Africa

BACKUP SLIDES

DEMO APPLICATION ROLLOUT

<https://github.com/ktenzer/openshift-ml-demo>



OPENSIFT: OUR FOUNDATION FOR AI / ML

LEVERAGE OPTIMAL CLOUD-NATIVE APP DEV CAPABILITIES



APPLICATION LIFECYCLE MANAGEMENT



CONTAINER ORCHESTRATION AND MANAGEMENT
(KUBERNETES)

ENTERPRISE CONTAINER HOST (RHEL)



Laptop



Datacenter



OpenStack



AWS



Microsoft Azure



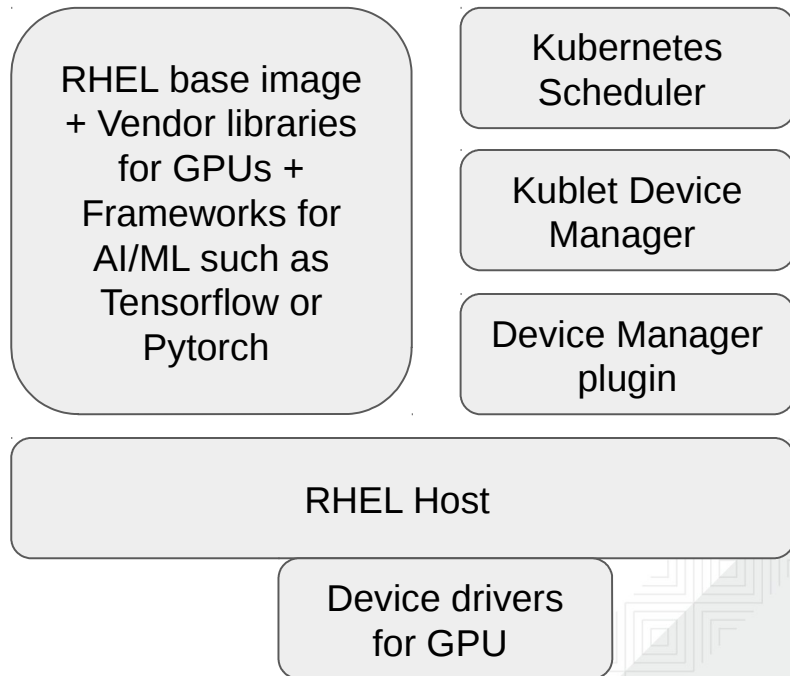
Google Cloud

Much more than just RHEL + Docker + K8S:

- Security + CI/CD pipelines + hybrid cloud management + container-native storage + networking
- Microservices infrastructure: Istio service mesh for routing & traffic control, security, availability, and identity services
- Certified plugin/interoperability with leading storage, network vendors
- Available & optimized for private & public clouds in self-managed or RHT managed offerings
- Fully integrated with RHT middleware platforms & services

GPU SUPPORT IN OPENSIFT

- Joint collaboration with strategic partners for drivers, plugins and container images
- Device Manager GA
- Scheduler: Priority and preemption
- Seamless install experience of drivers, plugins and dependencies
- Container images in RHCC/ISV Registry
- Certifications and support



KUBEFLOW

Upstream Community Project with Google, RedHat, Microsoft, Intel, Caicloud and others

Democratizing AI with Machine Learning for Everyone

Challenges in ML that Kubeflow is addressing: Composability, Portability, Scalability

End-to-End Kubeflow Workflow

