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Academy

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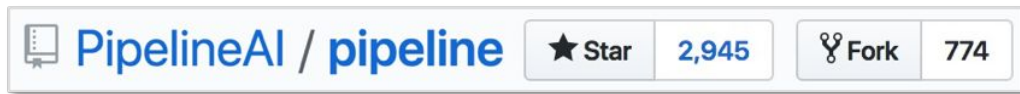
# Continuous Machine Learning: TensorFlow, Kafka, & PipelineAI

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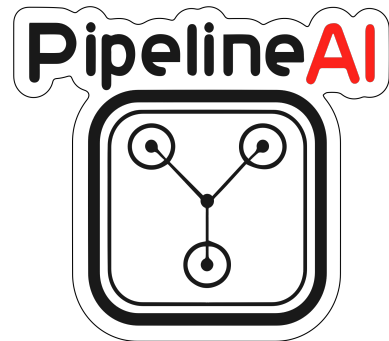
**RE-WORK** Deep Learning Conf

London, Sept 21, 2018

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**community.pipeline.ai**





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# Who is This Bloke?



**Chris Fregly**

CEO & Founder @ PipelineAI



## PipelineAI Advanced Spark and TensorFlow Meetup (London) *Meetup*

London, United Kingdom · 1,534 members ·

9

OCT

Tuesday, October 9, 2018, 6:30 PM

**Continuous ML in Prod with PipelineAI,  
TensorFlow, Kafka + GPU + Stateful K8s**

**NETFLIX**  databricks



Northwestern  
University

**slideshare.pipeline.ai**  
**youtube.pipeline.ai**

**quickstart.pipeline.ai**  
**community.pipeline.ai**

# Things I've Learned About the U.K.



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**88 VERY BRITISH PHRASES THAT WILL  
CONFUSE ANYBODY WHO DIDN'T GROW  
UP IN THE UK**

**#1 You OK ?!**

## Pippa (given name)

From Wikipedia, the free encyclopedia

*For other uses, see [Pippa](#).*

**Pippa** is an [English language diminutive feminine given name](#), as well as a [nickname](#) for [Philippa](#), comes from the [Greek \*philein\* \(to love\)](#) and *hippos* (*horse*). People with the name Pippa include:

- [Pippa Black](#) (b. 1982), Australian actress
- [Pippa Duncan](#), British Royal Navy officer
- [Pippa Funnell](#) (b. 1968), British equestrienne
- [Pippa Guard](#) (b. 1952), British actress
- [Pippa Haywood](#) (b. 1961), English actress
- [Pippa Middleton](#) (b. 1983), English socialite, sister of Catherine, Duchess of Cambridge
- [Pippa Scott](#) (b. 1935), American actress
- [Pippa Steel](#) (1948–1992), German actress
- [Rosalba Pippa](#), a musical performer



Northwestern  
University



Meghan  
Markle,  
Class of  
2003



Chris  
Fregly,  
Class of  
2003 B.C.

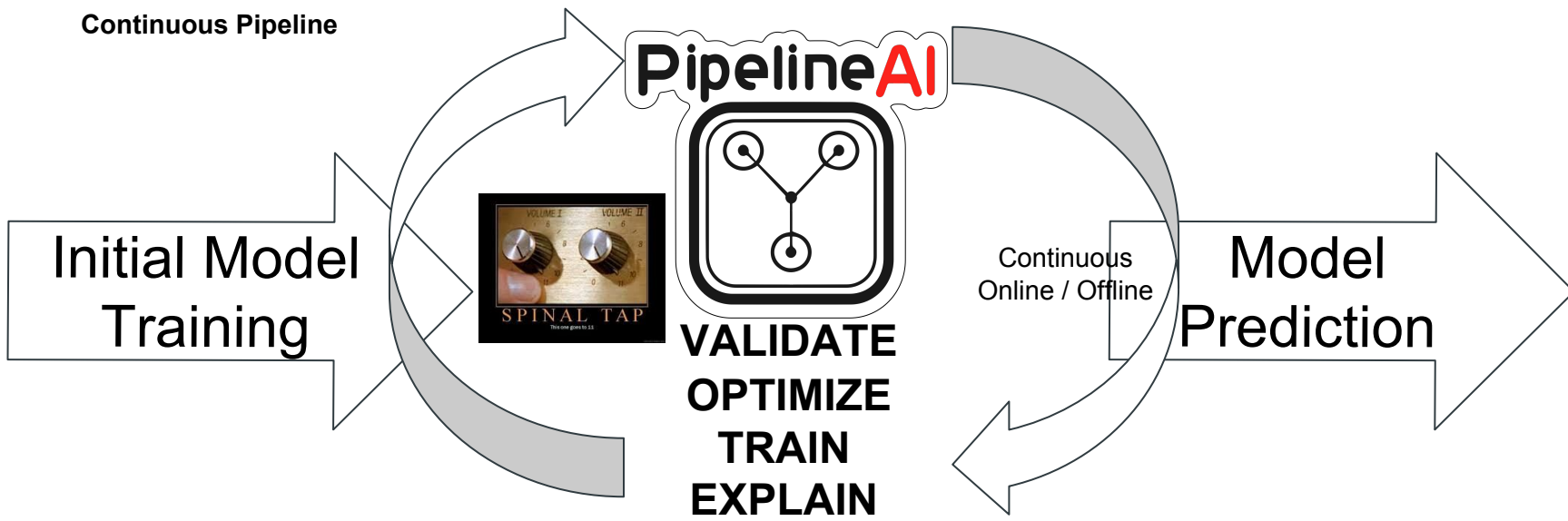
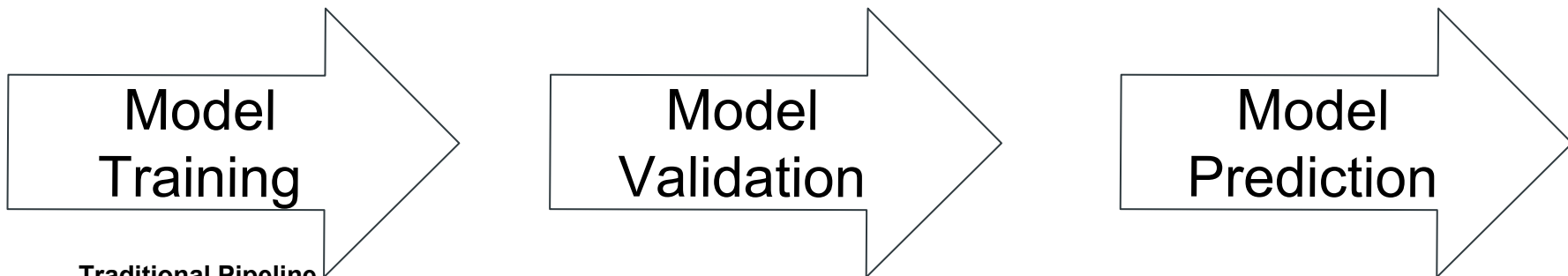


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# Continuous ML Production Pipeline





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# Why Now?

PipelineAI



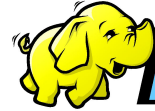
scikit

learn

ML **1.0** Research / Offline

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ML **2.0** Big Data / Offline



**hadoop**

ML **3.0** Production / Online



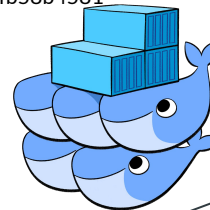


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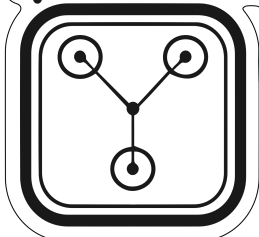
# PipelineAI Optimize

PipelineAI



**Goal:** Generate New Models to  
Deploy & Compare

PipelineAI



OPTIMIZE

Generate New Models

Optimize Runtimes

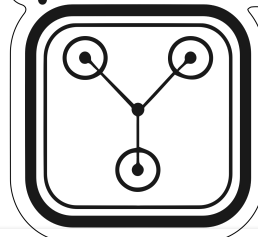
Compare Models

Deploy Models

Production Model

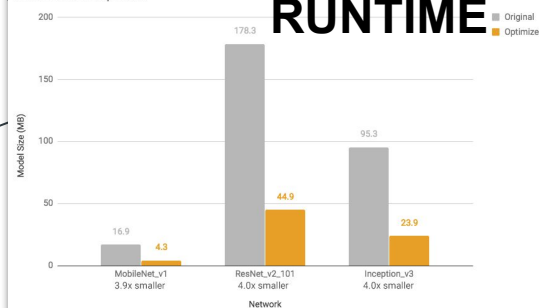
Research Model

PipelineAI



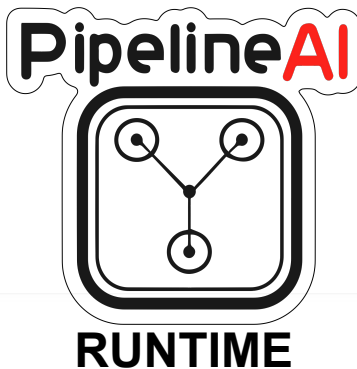
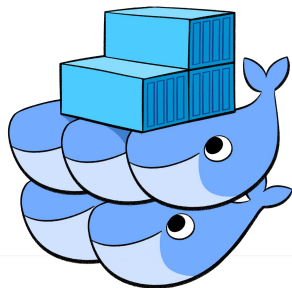
RUNTIME

Model Size Comparison



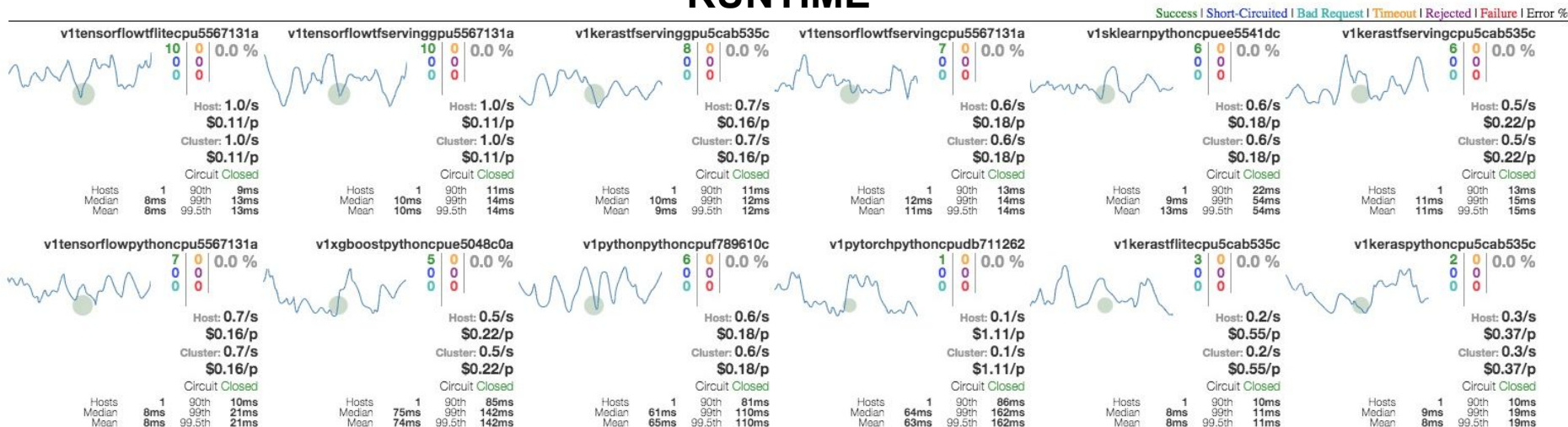


# Generated Models & Runtimes



Any Cloud,  
Any Hardware,  
Any Language,  
Any Framework

## Real-Time Metrics





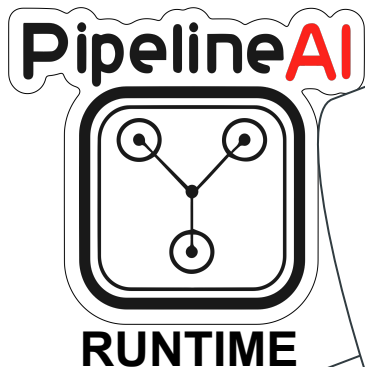
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# PipelineAI Runtime

**Goal:** *Continuously Improve  
Model Relevancy*



Raw Inputs

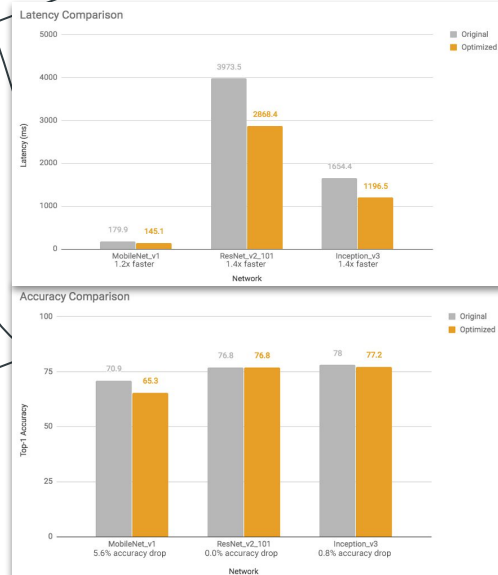
Validate Inputs

Geo-Routing

Trace & Explain

Detect Bias/Decay

Prediction







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PipelineAI



# Traction

120,000  
Users

100% Organic  
\$0 Acquisition Cost

3,000  
Community  
Edition  
Users

50  
Webinars  
Per Year

ML Engineers  
App Developers  
Data Scientists

95,000  
Global  
Meetup  
Members

100  
Speaking  
Events  
Per Yr

3,000  
GitHub  
Stars

Direct Funnel to  
Paid(\$)  
Editions



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GitHub

PipelineAI



85%

North America

3%

Asia

12%

Europe

1%

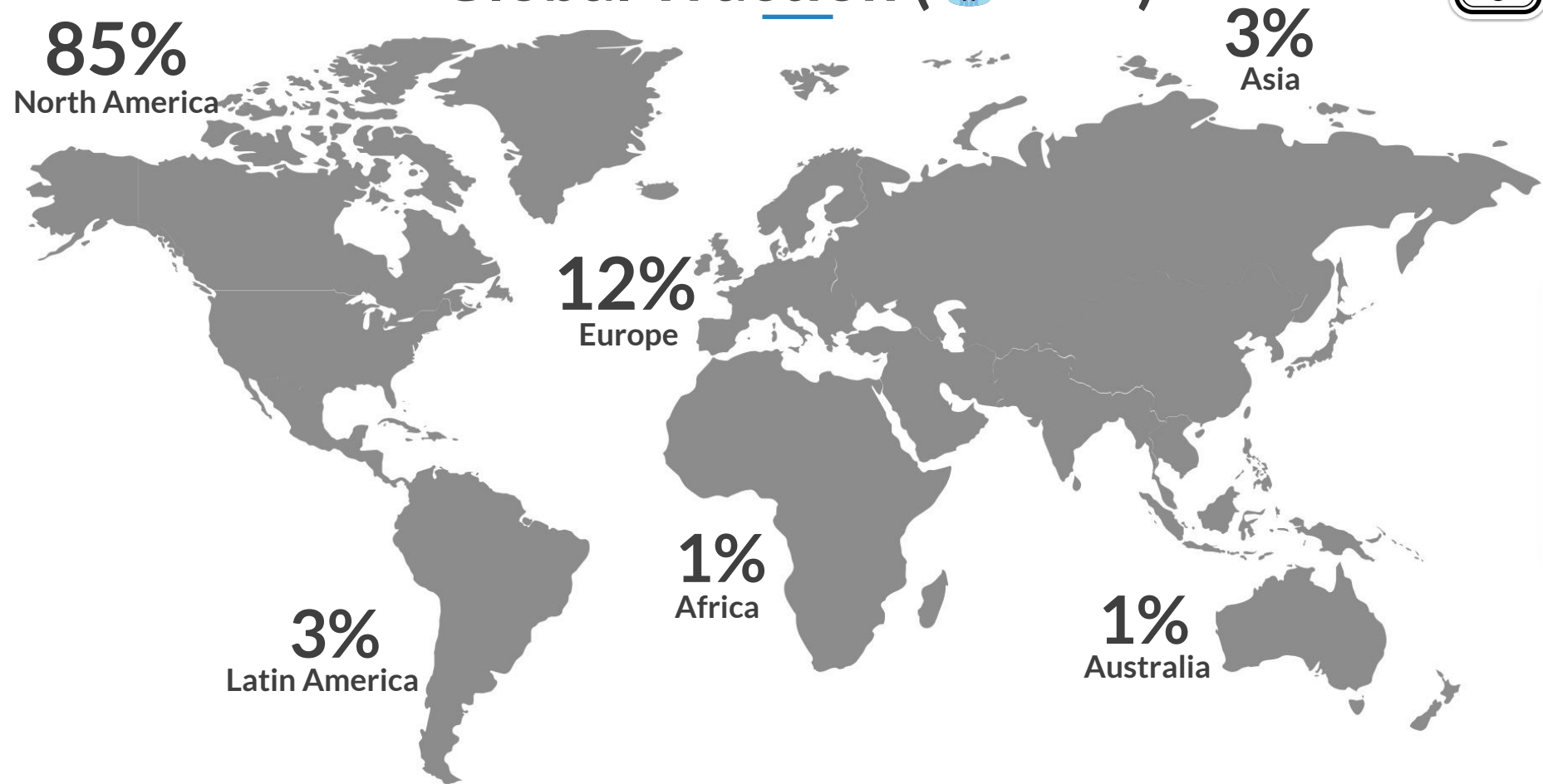
Africa

3%

Latin America

1%

Australia





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# Thank You, London!

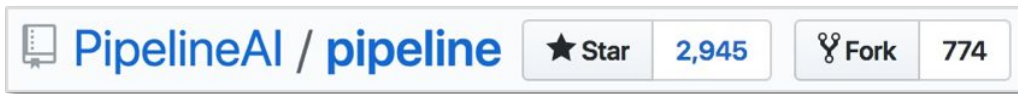
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**RE-WORK**

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