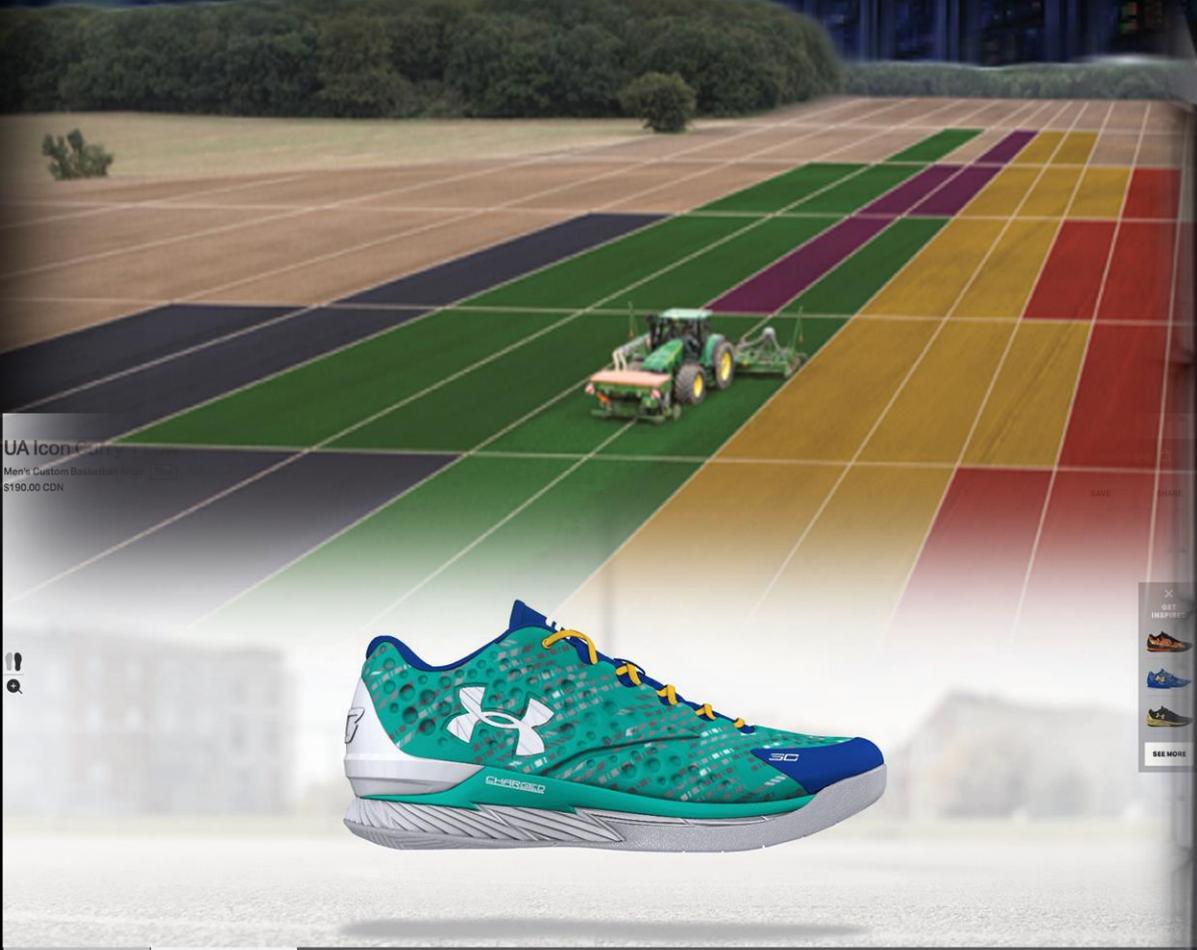




THE SPEED UP OF EVERYTHING



UA Icon Run
Men's Custom Basketball Shoe (2017)
\$190.00 CDN

SAVE SHARE

X
GET
INSPIRED

SEE MORE

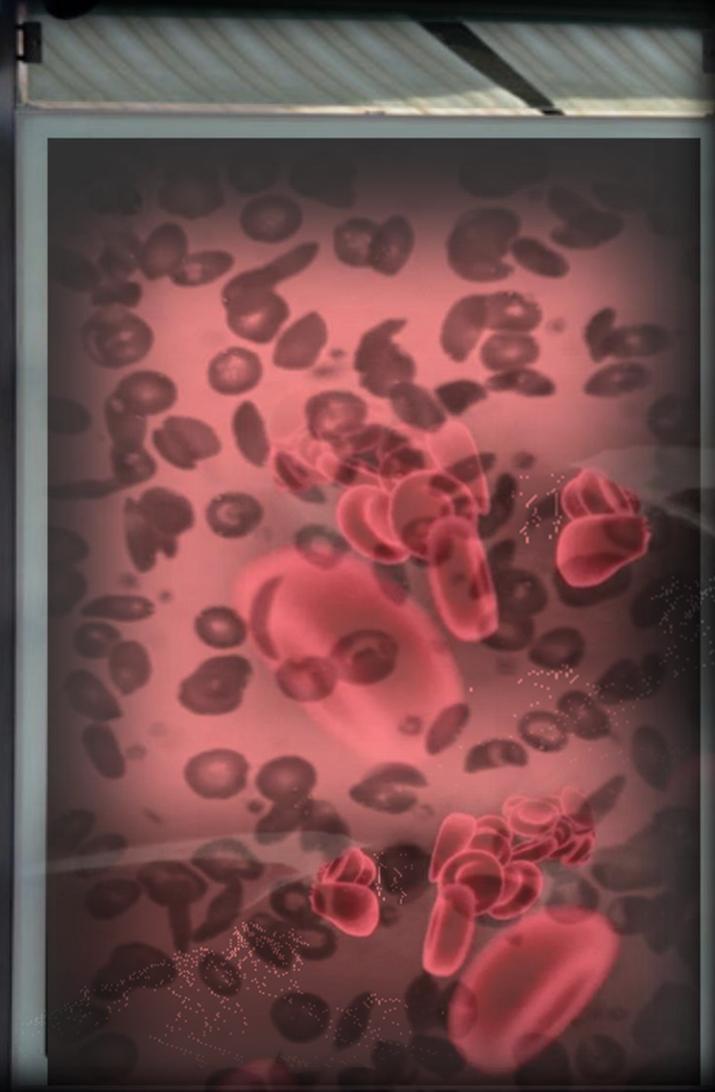
Change Colors Change Positioning

Size: 81 Rotation: -42

Horizontal: 14 Up/Down: 3

DONE

RESET



weather alerts

10

number of opportunities to talk to policyholders in an average year

97%
policyholders value alerts for weather

52%
take action to protect their property

61%
those that took action & filed a claim





not magic > magic >

v



AI

operations

business intelligence

self-service analytics

new business models

value



cost reduction

modernization

insight-driven

transformation

most are here

AI

renovation

innovation

Data has a better idea

operations

analytics

self-service analytics

new business models

+++

+++

+++

value

compression

SAP HANA

Db2

MYSQL

EDB
POSTGRES

mongo
DB

+++

redis

+++

spark

HYBRID

Hybrid
Multicloud

TensorFlow

Caffe

H₂O.c

Keras

we help
you get
here

∞

PYTORCH

POWERAI

Big Data

AI

Cyber Resiliency and Modern Data Protection

renovation

innovation

Data has a better idea

IBM Open Source Based AI Stack

Watson Knowledge Catalog

ORGANIZE
FOR AI



data profiling
quality & lineage
data governance

Watson Studio PowerAI Vision

BUILD
AI



data preparation
data exploration
model development

PYTORCH

TensorFlow

K Keras

dmic XGBoost

zML

Watson Machine Learning

DEPLOY, RUN &
MANAGE AI

Watson ML

Accelerator

model deployment
model management
model retraining

Chainer

Spark

Tea H2O

SnapML

Watson OpenScale

OPERATE
AI



business KPIs
production metrics
explainability fairness
continuous evolution



Accelerated
Compute



Intelligent
Storage



IBM LinuxONE

Rockhopper II ... 100s of databases in a single frame
Emperor II ... 1000s of databases in a single frame



MORE vs. x86

~2-3x more throughput per core



IBM DataStage



“ LinuxONE is able to do the work of ~4000 x86 machines in the space of 1-2 refrigerators



“ Met Office consolidated about 205 cores of x86 running on Oracle databases to only 17 LinuxONE cores



WOULD YOU
WATCH MORE?

3X

HADOOP



IBM
Spectrum
Scale

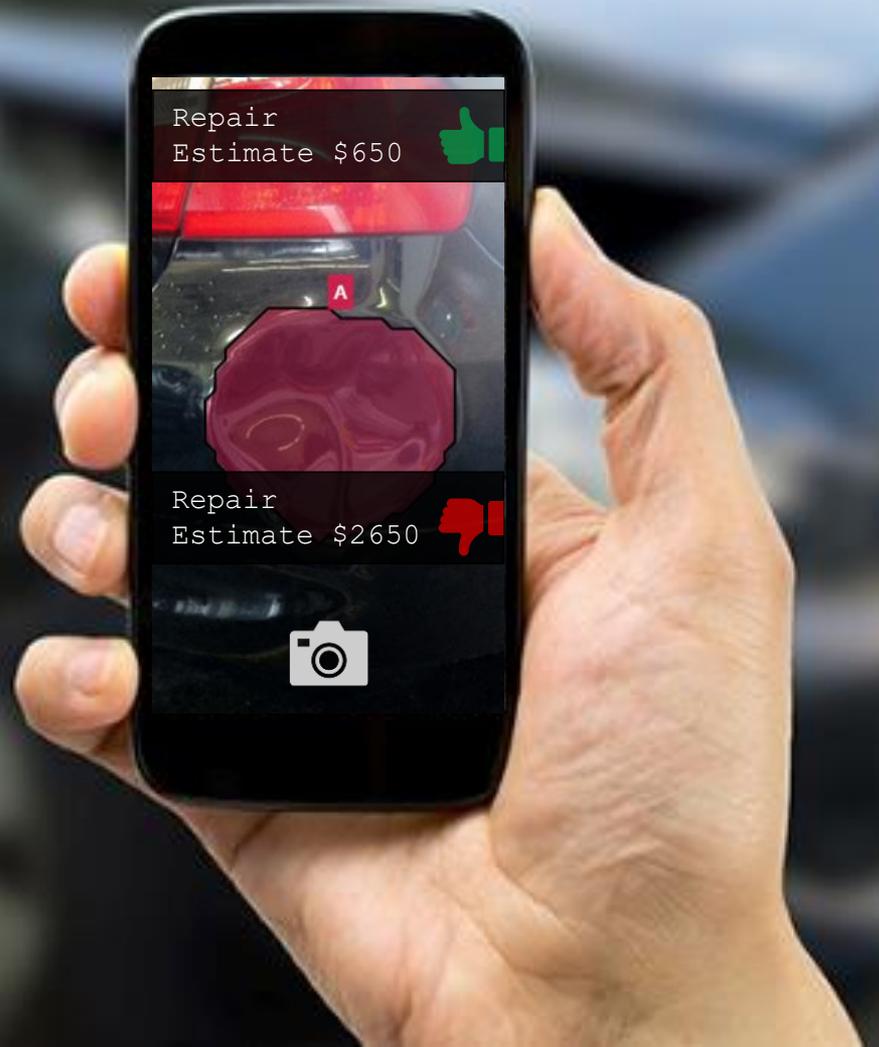
LESS DIVING?
MORE SCORING?



a redefinition of
risk management

WOW
the claims
processing experience

capturing an org's
intelligence when
it's most vulnerable



95.5%

10 hours

1hr creating 5 models to
find best solution

1hr code dev and
data exploration

4 hours feature
engineering

4 hours data
preparation

95.7%

1hr 7min

33 min of automated feature
engineering & model buildings

34 min of
data analysis



**Kaggle Titanic
Competition**

you could have the fastest servers in the world,
but if you can't get to the data ...
you have the slowest servers in the world





WML-A with Spectrum Conductor

ready to commence
training



FAIRNESS EXPLAINABILITY ROBUSTNESS LINEAGE

Nutrition Facts

Serving Size 2/3 cup (55g)
Servings Per Container About 8

Amount Per Serving

Calories 230 Calories from Fat 40

% Daily Value*

Total Fat 8g **12%**

Saturated Fat 1g **5%**

Trans Fat 0g

Cholesterol 0mg **0%**

Sodium 160mg **7%**

Total Carbohydrate 37g **12%**

Dietary Fiber 4g **16%**

Sugars 1g

Protein 3g

Vitamin A 10%

Vitamin C 8%

Calcium 20%

Iron 45%

* Percent Daily Values are based on a 2,000 calorie diet.
Your daily value may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

AI Model Facts

Build Time 1 hour 45 (1000 epochs)
Number of features 56

Determines credit worthiness for loans under \$5000

Scores Approved (A) | Denied (D) | Further Review (FV)

Top feature weightings

Late Payments (engineered) **56%**

R3 – (90 days) **42%**

R2 – (60 days) **32%**

R1 – (30 days) **26%**

Time at residence (engineered) **17%**

* Scored by "Residential Determination" algorithm which creates blended overall score that penalizes multiple moves within 3 years. Algorithm ID# E423. Details bitly.housing-algo.com.

Time at employer (engineered) **13%**

* Scored by "Employer Determination" algorithm which creates blended overall score that penalizes multiple jobs within 2 years. Algorithm ID# E923. Details bitly.job-algo.com.

Current savings **8%**

Current wealth **6%**

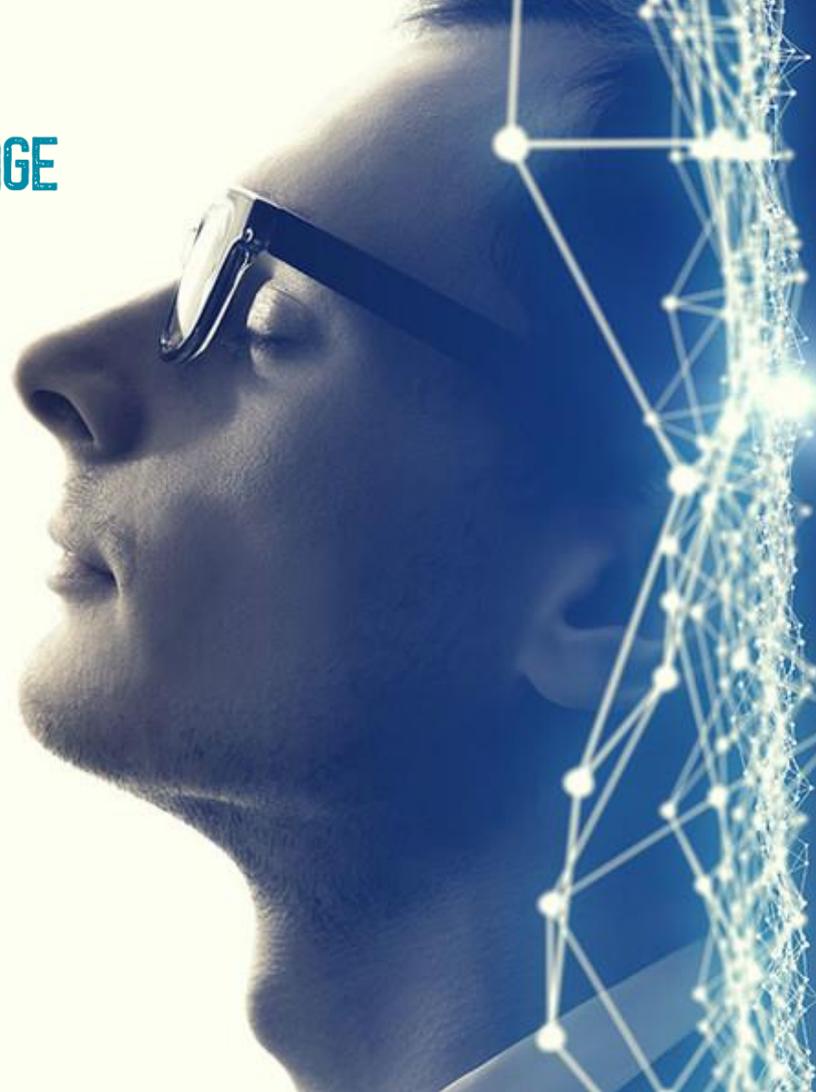
Chief Scientist Rodney Reid

GDPR Compliance Officer Shannon Pickard

Data is source under guidelines of [Doc #12233](#). FICO credit risk score not used per [E42323](#) exemption for low income loan application pool under Rebuild Credit promotion.

Hyperparameters

```
first_neuron:[4, 8, 16, 32, 64], 'hidden_layers':[0, 1, 2], 'batch_size': (1, 5, 5), 'dropout': (0, 0.2, 3), 'weight_regularizer':[None], 'losses': [binary_crossentropy], 'optimizer':[Adam, Nadam, RMSprop], 'activation':[relu, elu], 'last_activation':[sigmoid]
```





everywhere

WATSON anywhere

**THERE IS NO AI
WITHOUT AN IA**
(INFORMATION ARCHITECTURE)