

# 3 Shades of Data Science

João Veiga

Product Data Scientist

2019-01-08

echo \$(whoami)

Joined Feedzai in a mixed product/delivery Data Science role.



Expectation

# echo \$(whoami)

Joined Feedzai in a mixed product/delivery Data Science role.



Expectation



```
{  
    "card_bin": "",  
    "card_fullname": "null null"  
}
```

Reality

# echo \$(whoami)

Joined Feedzai in a mixed product/delivery Data Science role.



Expectation



```
{  
    "card_bin": "",  
    "card_fullname": "null null"  
}
```



Reality

A photograph of a modern building's exterior, featuring a complex structure of dark-framed glass windows and steel beams forming a grid pattern. The perspective is looking up at the building, with the sky visible through the glass panels.

# DATA SCIENCE IN THE WILD

# The great chasm

Delivery

*much data*

⋮

Research

*very science*



# Delivery Data Science

What customers  
think I do



What other DS team  
thinks I do



What I actually do

Issue in data

[mrcustomer@customerface.org](mailto:mrcustomer@customerface.org)

Issue in data

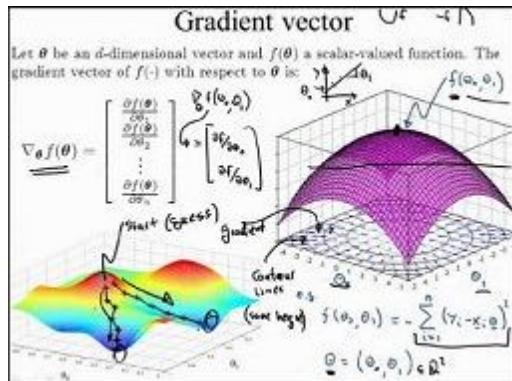
Dear Customer

We found some issues with the ~~JSON~~ format you sent

What customers  
think I do



What other DS team  
thinks I do



What I actually do

```
In [1]:  
import keras  
Using TensorFlow backend.
```

# The 3 shades of data science

## Delivery

KPI (key performance indicators)  
As simple as possible

Tested and reliable tools & tech  
Focused on results

## Research

Unknown outcomes  
Complex

State of the art tools & tech  
Focused on experiments

# The 3 shades of data science

## Delivery

KPI (key performance indicators)  
As simple as possible

Tested and reliable tools & tech  
Focused on results

## Product

Vision & OKR (objectives and key results)  
Agile

Integrated  
Focused on goal(s)

## Research

Unknown outcomes  
Complex

State of the art tools & tech  
Focused on experiments

# Product Data Science

What customers  
think I do

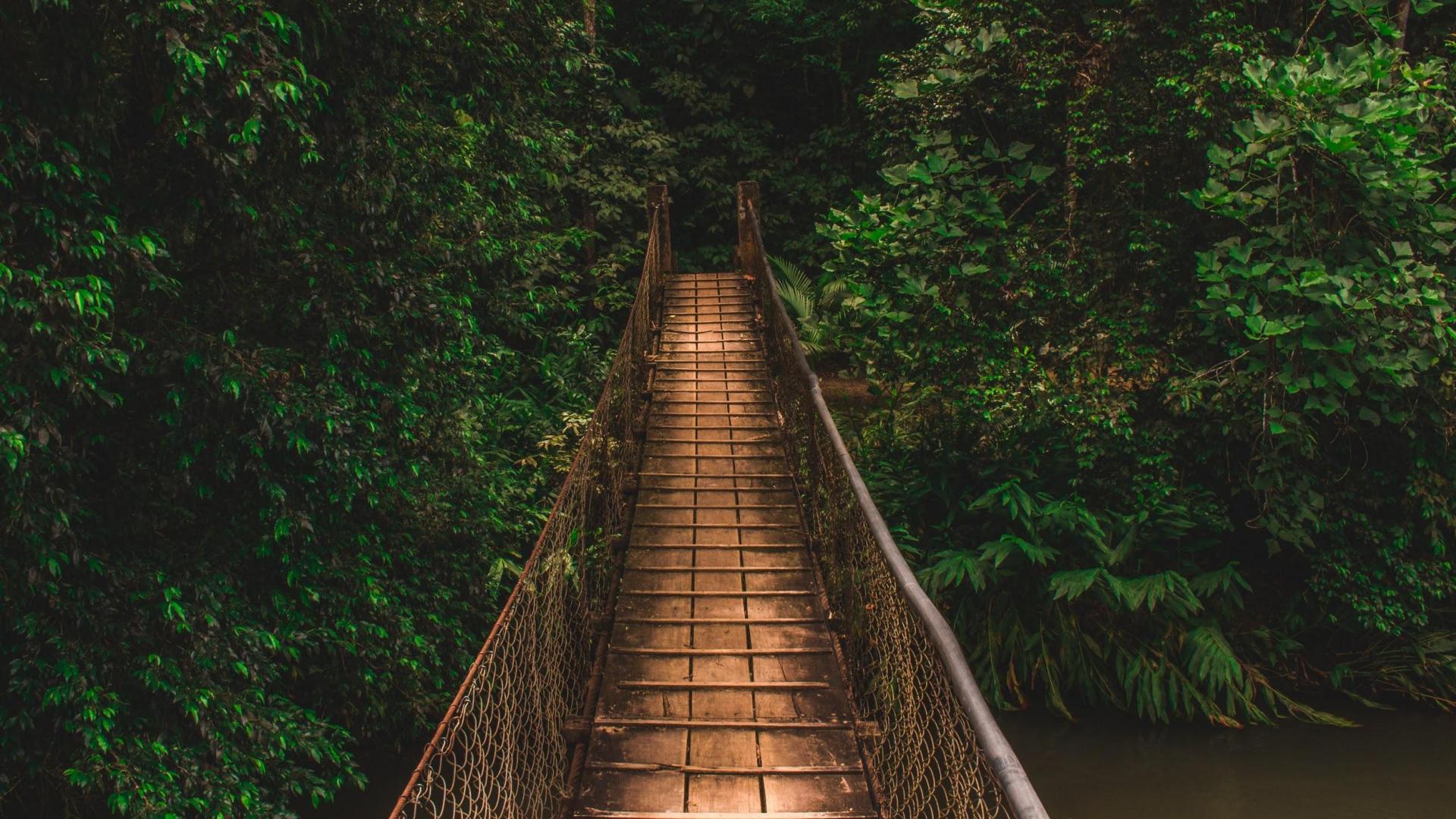


What other DS team  
thinks I do



What I actually do







THE DREAM



# Hello, we're a product company

The dream: build stuff → get clients → get moneys





# Hello, we're a product company

Let's talk about vision



# Hello, we're a product company

Let's talk about vision

*Becoming the best global **entertainment distribution** service*

*Getting people from **point A to point B***



# Hello, we're a product company

Let's talk about vision

*Becoming the best global **entertainment distribution** service*

Netflix

*Getting people from **point A to point B***

Uber

The goal is not the  
technology





# Hello, we're a product company

The dream: build stuff → get clients → get moneys



# Hello, we're a product company

The dream: build stuff → get clients → get moneys

Lots of tech is based on **data**.

Lots of tech is based on **AI**.

# Hello, we're a product company

The dream: build stuff → get clients → get moneys

Enter the **data scientists**

Drive business decisions

Aware of state of the art algorithms

Aware of tech

Customer-facing work

A/B testing

Digest terabytes of data

Monitor





# What if the product is a data science platform?

# PRODUCT MINDSET



# Feedzai Risk Ledger

## Vision

Detect more fraud by combining data from multiple customers and vendors.

## Focus on the big picture

Avoid going down the rabbit hole.

The best is the enemy of the good.

## Small picture

Which algorithm should we use?

## Big picture

Will customers want this?  
Will this work?  
How-to privacy and security?  
What data do we need?  
Who do we partner with?  
How do we market and sell this?

## Understand Context

How will it be used?

Different industries.

Different use cases.

Different geographies.

## Challenge your assumptions

*“This will NEVER need >9000 MB of RAM”*

Do code and results reviews.

Ask questions to others.

...Learn from mistakes.

# Product Data Science



## Product Mindset

Focus on the big picture

Understand context

Challenge your assumptions

Design to fail fast

Communicate



THANK YOU