

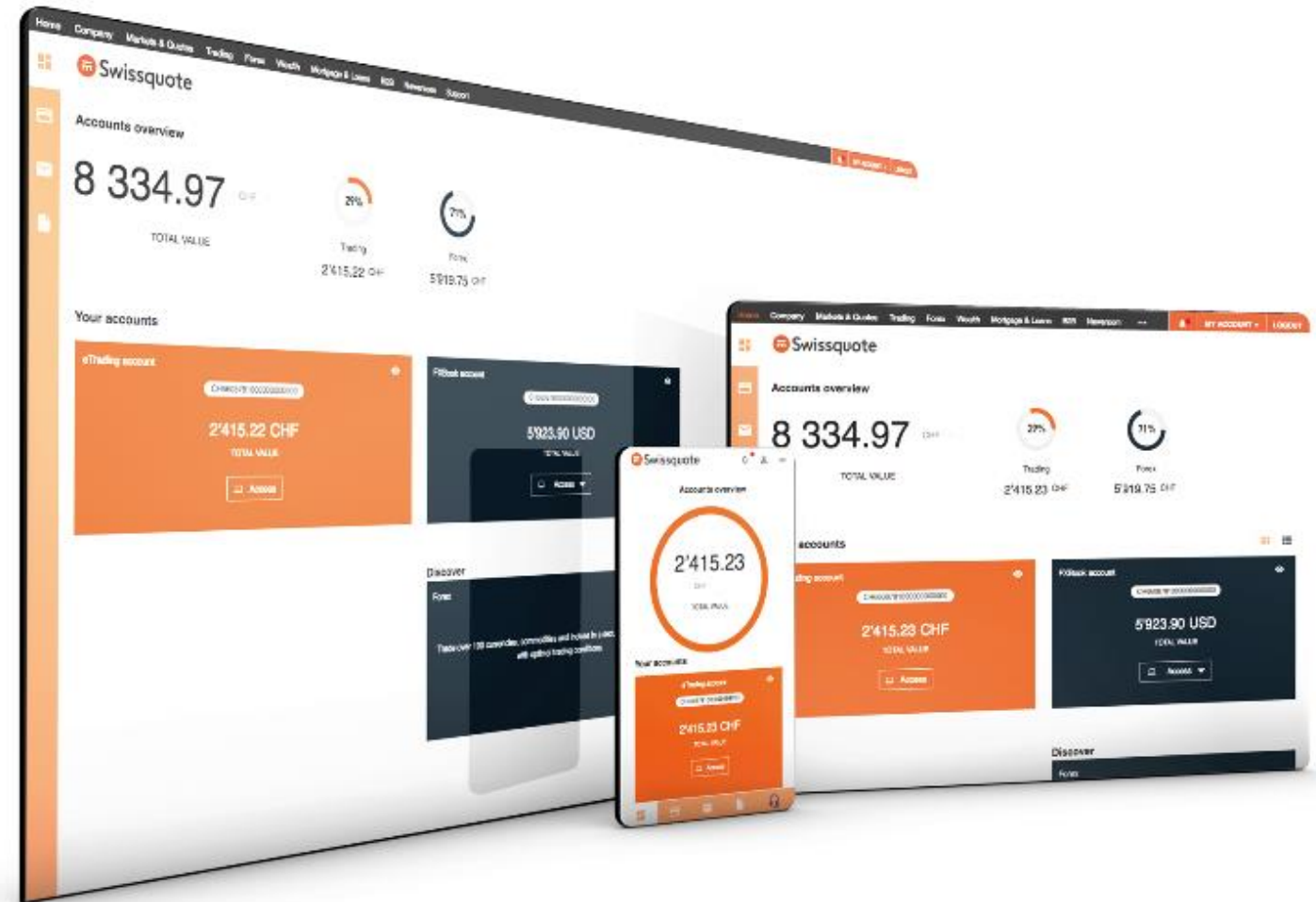


HELLO LAUZHACK!

We are Swissquote

In a nutshell

We are
**THE SWISS LEADER
IN ONLINE BANKING**

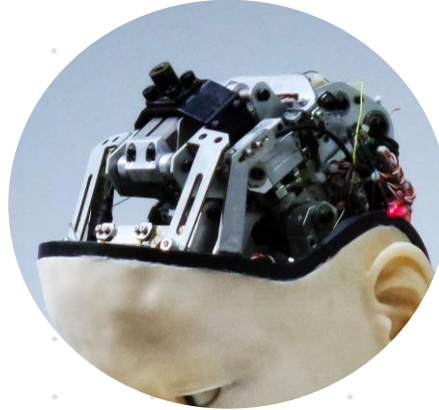


We've challenged that

Democratizing Banking
with Technology



First Robo Advisor



Cannabis Theme Trading



Founded by 2
EPFL Engineers



Bank from a Garage



First bank to make
Cryptocurrencies tradable



NO DRESS CODE

Our people



Over **700** employees



9 cities



50 nationalities



34 y.o average age



250 software engineers



A hand is shown interacting with a futuristic digital interface. The background is a deep blue with a glowing hexagonal grid pattern. The hand is positioned on the right side, with fingers touching the interface. The text is overlaid in the center in a large, white, sans-serif font.

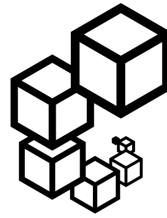
To be the world's
most pioneering
and intuitive
online bank.

CHALLENGE #1

Are you ready for...



SWISSQUOTE EVOLUTION



SWISSQUOTE EVOLUTION

Your mission

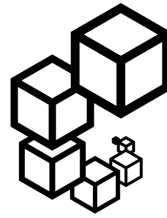
Make your FinTech grow by surviving markets challenges!

Your weapon

Build the sharpest algorithm, train it with financial datas to make it adapt in a complex environment.

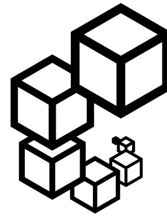
Your competitors

Other teams and... the market!

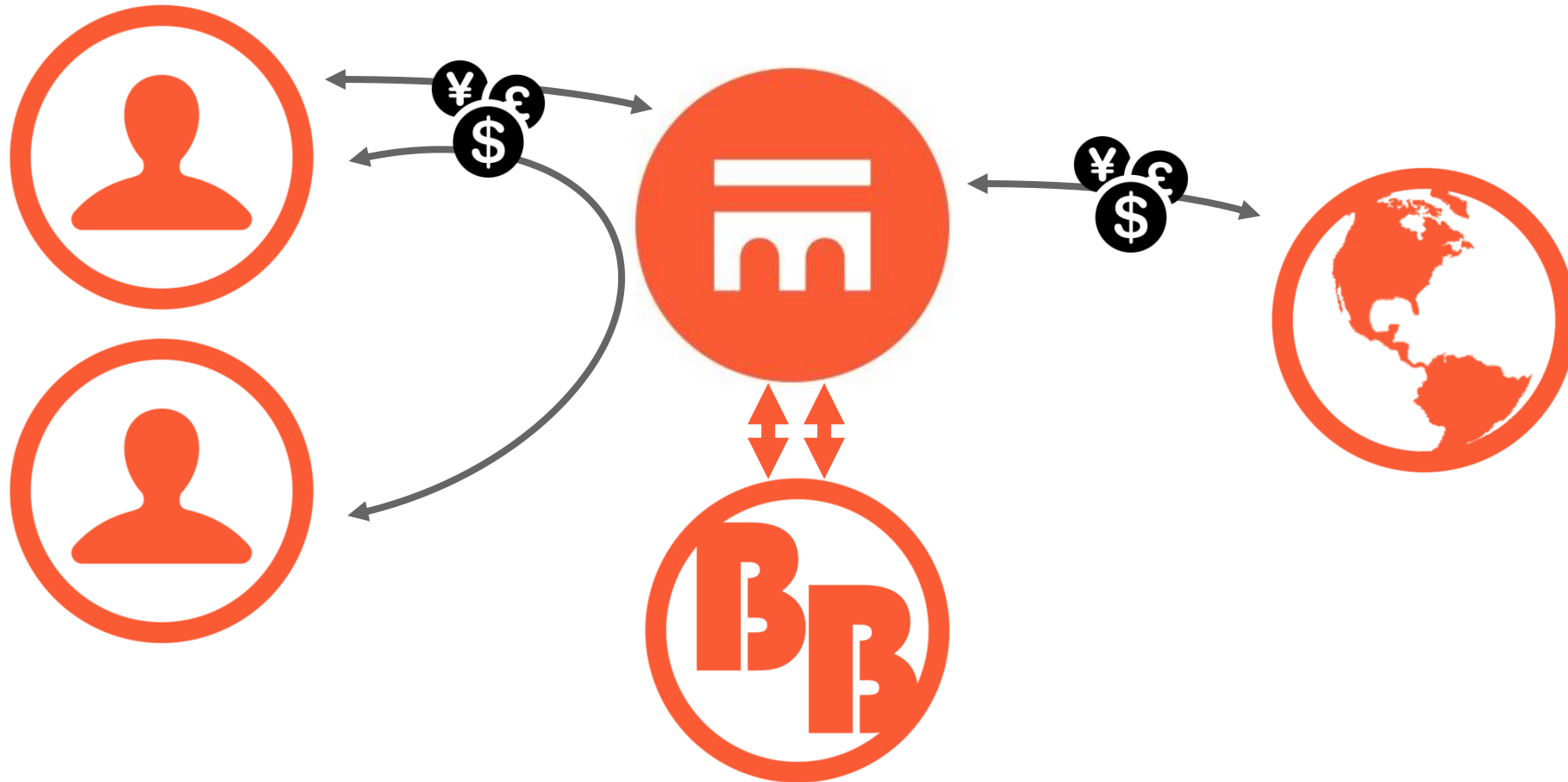


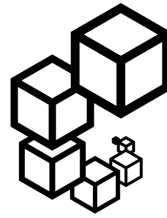
SWISSQUOTE EVOLUTION



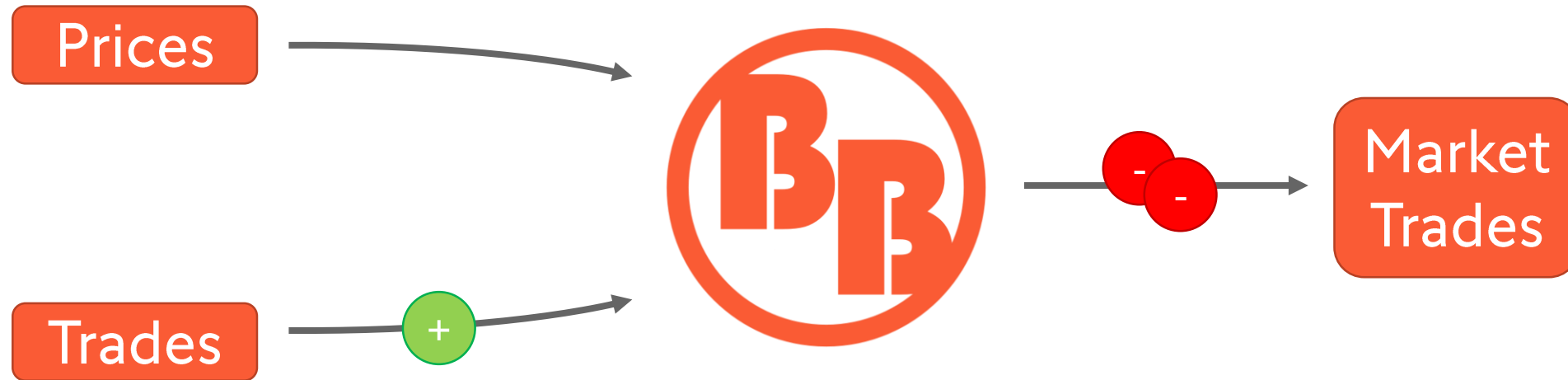


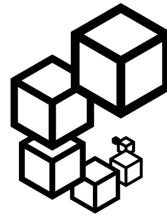
SWISSQUOTE EVOLUTION





SWISSQUOTE EVOLUTION





SWISSQUOTE EVOLUTION

Rule #1

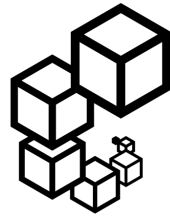
You start with CHF 20M

Rule #2

You can not have negative balance in any currency, at any moment

Rule #3

You must finish with positive income



SWISSQUOTE EVOLUTION

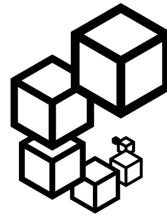
How ?

Integrate a java library (any technology allowed)

Beat 5 market levels :

- It's something
- Proof of concept
- Working software
- Start-up
- Unicorn

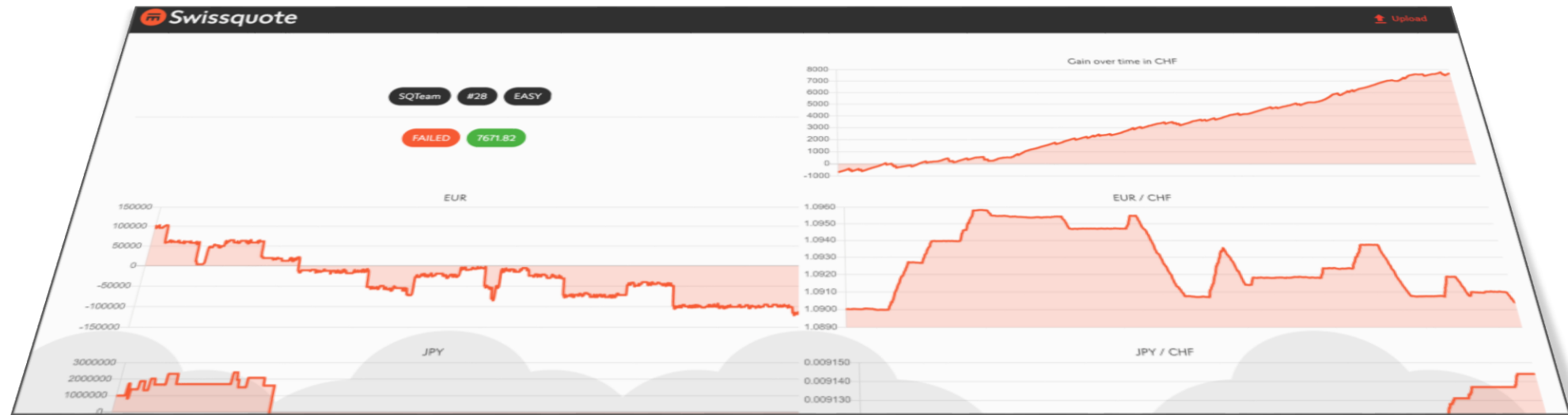
Start by forking : github.com/Astat/sq-evolution

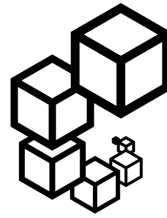


SWISSQUOTE EVOLUTION

How ?

View your results at "astat.github.io/sq-evolution-viewer"





SWISSQUOTE EVOLUTION

Formulas

Client trades "Q" EUR/CHF

$$\begin{array}{|l} \text{EUR: } -Q \\ \text{CHF: } Q \times r \times (1+M) + 10 \end{array}$$

Client trades "Q" CHF/EUR

$$\begin{array}{|l} \text{EUR: } Q / (r \times (1-M)) \\ \text{CHF: } -Q + 10 \end{array}$$

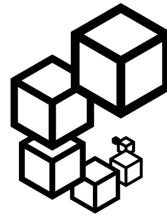
You trade "Q" EUR/CHF

$$\begin{array}{|l} \text{EUR: } Q \\ \text{CHF: } -Q \times r \times (1+M) - 100 \end{array}$$

You trade "Q" CHF/EUR

$$\begin{array}{|l} \text{EUR: } -Q / (r \times (1-M)) \\ \text{CHF: } Q - 100 \end{array}$$

r : EUR/CHF exchange rate | **M** : EUR/CHF mark-up | **Q** : traded quantity

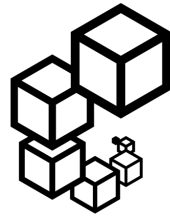


SWISSQUOTE EVOLUTION

Tip #1

“ Playing the market is risky ”

Focus on reducing exchanges while minimizing risks



SWISSQUOTE EVOLUTION

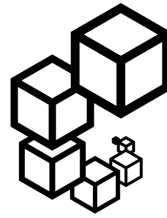
Tip #2

“ Define a strategy, split the work ”

Modelise inputs for your engine

Manage the interactions

Train your engine : clever rule, deep-learning, evolutionary algorithm



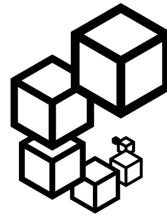
SWISSQUOTE EVOLUTION

Tip #3

“ Find the hidden behaviour ”

Take advantage of the infinite simulation

Use multiple profiles



SWISSQUOTE EVOLUTION

Evaluation #1

10 Points

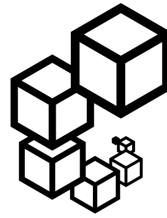
“ Trial on 5 scenarii ”

Profile : random / Steps: 5000/ Speed: 1ms

Risk analysis

Survive the rules

Final performance



SWISSQUOTE EVOLUTION

Evaluation #2

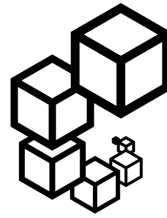
5 Points

"Strategy"

How is your engine powered

Parameters used

Clear and comprehensible explanations



SWISSQUOTE EVOLUTION

Evaluation #3

5 Points

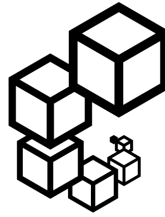
“ Realization ”

Implementation quality

Technology choice

Bonus for self-contained forkable repos

Prizes



SWISSQUOTE EVOLUTION

#1

Google
Home

For each
team member



#2

Swissquote
Power Banks

For each
team member



CHALLENGE

#2

THINK OUT OF THE GAME

Our famous video game, **Bouncy Trade**, is about to retire after 5 years of service.



Do you think you can find its replacement? Develop a **demo version** of a video game that will mix **financial world** and **easy gameplay**.

Prizes

THINK OUT OF THE GAME

#1

Nintendo
Switch lite

For each
team member



#2

Swissquote
Power Banks

For each
team member



THANK YOU!