Jampp <> ECI

The challenges of working in AdTech

About Jampp

Today we lean on mobile to play, shop, work, learn, monitor our health, and escape.

Jampp's mission is to play a leading role enabling this mobile app economy to grow.

We build technology that supports the most ambitious companies - from gaming to commerce - to propel the reach of their apps and accelerate their mobile businesses. It's what the pros use to market at scale, without the hassle of building and managing in-house programmatic infrastructure.

About us

Macarena Villamea
Data Scientist

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Our Solution

User Acquisition **Retargeting**

Discovery   Install   First Purchase   Repurchase/s   Re-engagement

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Main customers

twitter   lyft   GRUBHUB   twitch   DiDi   audible
an amazon company
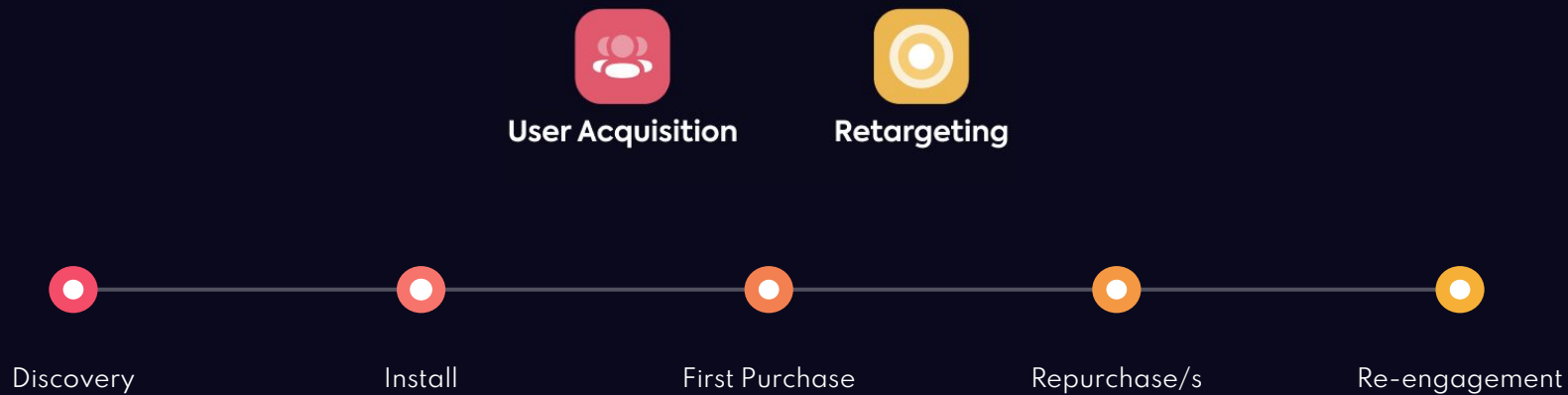
The big picture

Advertisers **Jampp** **Ad Exchanges** **Publishers** **Audiences**

Ad exchange (SSP)
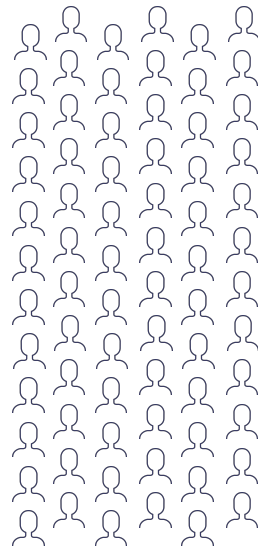
Ad exchange (SSP)

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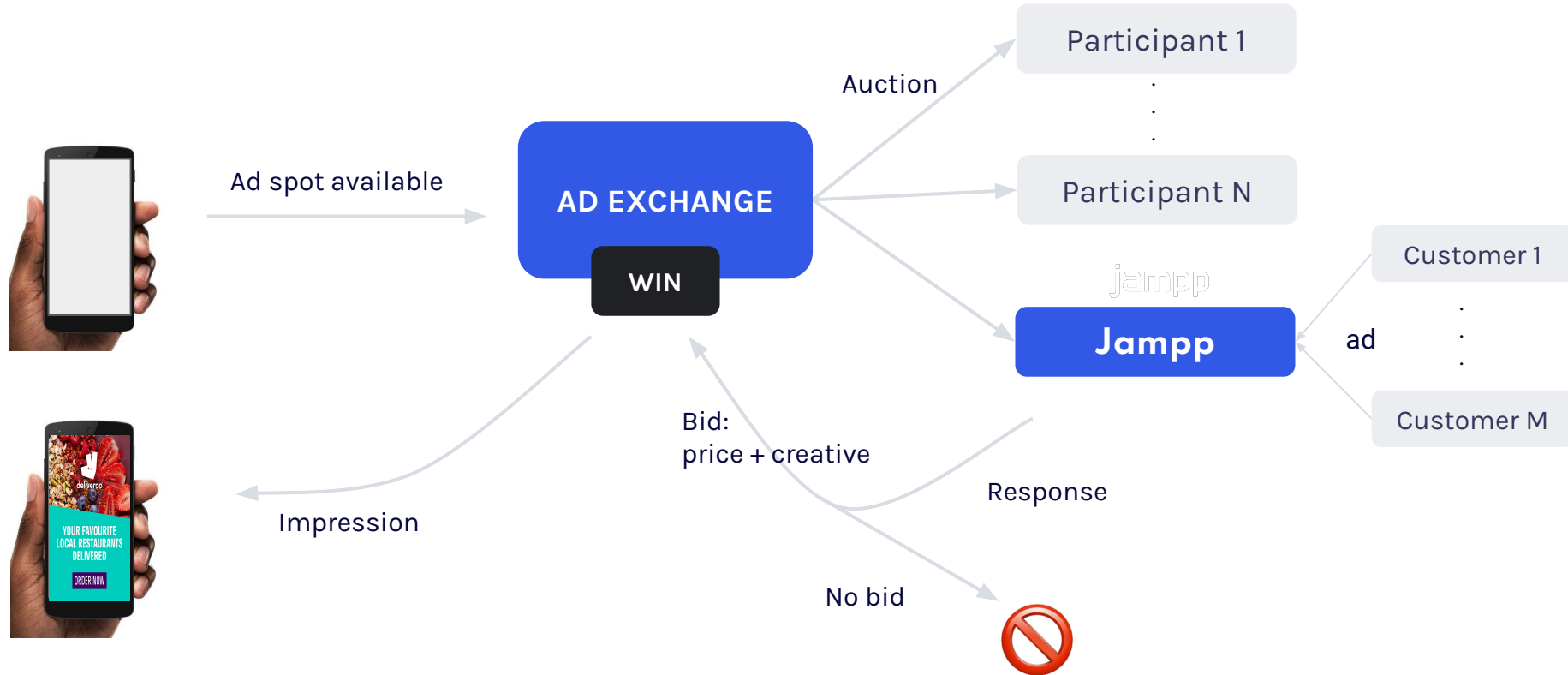
Introduction to Real-Time Bidding (RTB)

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Challenges of RTB

Engineering

Performance

- We are **processing 1.7 millions auctions per second** from devices around the world.

- In **less than 100 ms** we need to decide when a user is relevant (or not) for our clients and choose the best ad to show.

- Because of the low net revenue that we earn for each impression, **each part of the system is extremely optimized at macro and micro level.**

Availability /Scalability

- We are making around 500 millions predictions by day.

- Tailored estimators: We are constantly moving from a global rate model to rate models by client and facing their evaluation, training architecture, visualization and monitoring.

- Exploration/exploitation: overfitting risk and being careful to avoid under/overestimating unexplored data.

Platform

- We build a platform to **setup and operate campaigns in multiple countries.**

- We need to **provide an easy way to navigate huge amounts of data** and metrics to oversee and operate the campaigns.

- We **provide APIs** so our clients can use third party apps to make use of our data.

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Data Science

Infrastructure

- We build data pipelines that handle **+1.7 billion events per day!**

- We process **150TB of data per day on our ETLs**, in charge of sanitize and enrich our different message streams.

- We operate the big data infrastructure that **provides access to over 600TB of queryable data** for exploration and model training.

Prediction

- We are making around **500 millions predictions by day**.

- **Tailored estimators**: We are constantly moving from a global rate model to rate models by client and facing their evaluation, training architecture, visualization and monitoring.

- **Exploration/exploitation:** overfitting risk and being careful to avoid under/overestimating unexplored data.

Optimization

- We are using a **"live" Gradient Descent**, with the risks that can bring . We are constantly making changes and tracking it in order to avoid losing A LOT OF money.

- **Taking decisions with missing data:** The effective rate is known 7 (or more) days later.
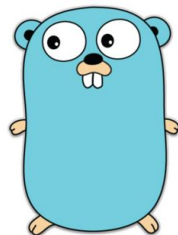
Current projects

- Factorization machines-based customer-specific models
- Device-level feature enrichment
- Quasi-newton gradient descent
- Redesign of reporting aggregation pipeline with Apache Druid
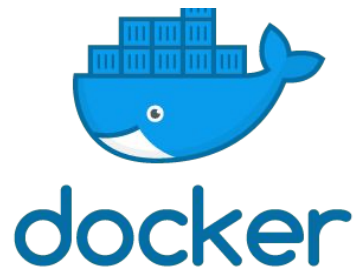- Real time auction filter to maximize unique devices

Technologies we use

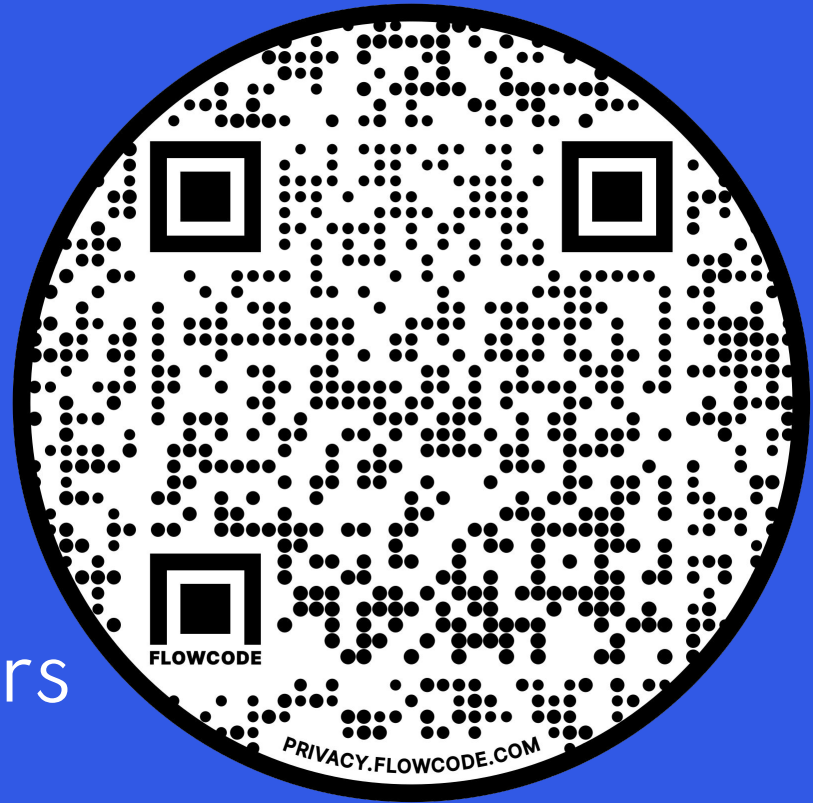We are hiring!
www.jampp.com/jobs

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Data Analysts
ML Engineers
Performance
Engineers
Data Engineers
Cloud Engineers
Full Stack Engineers
…...& more!

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Our agenda for the week

	Monday	Tuesday	Wednesday	Thursday	Friday
12 hs	**Jampp presentation** 👏 Macarena Villamea & Federico Palladoro **(You are here!)**	**"Docker para Big Data"** 💬 Dante Pawlow	**"Inferencia causal"** 💬 Jorge Brea	**"Optimización mediante Algoritmos genéticos"** 💬 Kevin Speyer	**"Cython"** 💬 Valentin Paz Marcolla
17 hs	**Challenges presentation** 🧩	**Interview with Jamppers (Get to know us!)** 👏 Federico Palladoro Olivia Fernandez Nicolas Monner José Navas	**Interview with Jamppers (Get to know us!)** 👏 Dardo Marasca Lautaro Quiroga Mauricio Guignard	**17: 15 Jampp official presentation (ECI channel)** Macarena Villamea & Federico Palladoro	**Challenge winners announcement** 🎉
19 hs					**After party** 🍺

Questions?
See you at our channel!
#jampp

Thank you!