Open Source at Facebook

Kathy Kam
HEAD OF OPEN SOURCE
Focused on Developers

Designed for Scale

Built with Community
Focused on Developers

Designed for Scale

Built with Community
PyTorch
Deep Learning Platform for Research and Production
AI/ML Primer

AI

ML

DL
AI/ML Workflow

- Get & Prepare Data
- Build & Train Model
- Deploy Model for Inference
400T+

Predictions Per Day
Research to Production at Facebook

THE PREVIOUS PROCESS

PYTORCH → ONNX → Caffe2
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Built in Community
React Native
Build Mobile Apps with React
60,000 apps include the React Native framework.

Source: Bugsnag
Benefits for Marketplace

- React Ecosystem
- Iteration Speed
- Cross-Platform Code Sharing

1 in 3 People in the US use Marketplace every month
Marketplace Startup

H2 2017

- react native startup
- pre-render js
- network + server
- js + render
- native render
Marketplace Startup
// index.js
const MarketplaceFeed = require('./MarketplaceFeed');
const MarketplaceItemDetails = require('./MarketplaceItemDetails');
const SafetyCheck = require('./SafetyCheck');
const CityGuides = require('./CityGuides');

// ...
const MarketplaceFeed = require('./MarketplaceFeed');
const MarketplaceItemDetails = require('./MarketplaceItemDetails');
const SafetyCheck = require('./SafetyCheck');
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Marketplace Startup

- react native startup
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Marketplace Startup

react native startup → pre-render js → network + server → js + render → native render
Marketplace Startup

react native startup  pre-render js

network + server

js + render

native render
Marketplace Startup
H1 2019

react native startup  pre-render js  js + render  native render

network + server
Hermes
JavaScript Engine Optimized for React Native
Primary Mobile Metrics

TTI
Time to Interaction

APK
Application Size

Memory
Memory Utilization
Primary Mobile Metrics

TTI
Time to Interaction

Stock RN: 4.30s
Hermes RN: 2.01s

APK
Application Size

Stock RN: 41mb
Hermes RN: 22mb

Memory
Memory Utilization

Stock RN: 185mb
Hermes RN: 136mb

↓2.29s
↓19mb
↓49mb
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Built in Community
React

A Declarative Way to Build UI

Declarative

React makes it painless to create interactive UIs. Design simple views for each state in your application, and React will efficiently update and render just the right components when your data changes.

Component

Build efficient components that make UIs.

Since code in Java is compiled, you can

Declarative views make your code

...
React Developers
1,800,000+

Source: Chrome Web Store
## Top contributors on GitHub

<table>
<thead>
<tr>
<th>Rank</th>
<th>Repository Name</th>
<th>Contributions</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>microsoft/vscode</td>
<td>19.1k</td>
</tr>
<tr>
<td>02</td>
<td>MicrosoftDocs/azure-docs</td>
<td>14k</td>
</tr>
<tr>
<td>03</td>
<td>flutter/flutter</td>
<td>13k</td>
</tr>
<tr>
<td>04</td>
<td>firstcontributions/first-contributions</td>
<td>11.6k</td>
</tr>
<tr>
<td>05</td>
<td>tensorflow/tensorflow</td>
<td>9.9k</td>
</tr>
<tr>
<td>06</td>
<td>facebook/react-native</td>
<td>9.1k</td>
</tr>
<tr>
<td>07</td>
<td>kubernetes/kubernetes</td>
<td>6.9k</td>
</tr>
<tr>
<td>08</td>
<td>DefinitelyTyped/DefinitelyTyped</td>
<td>6.9k</td>
</tr>
<tr>
<td>09</td>
<td>ansible/ansible</td>
<td>6.8k</td>
</tr>
<tr>
<td>10</td>
<td>home-assistant/home-assistant</td>
<td>6.3k</td>
</tr>
</tbody>
</table>

Source: octoverse.github.com/projects
Responded to almost 500 issues and closed about 300
Merged over 600 PRs
Focused on Developers

Designed for Scale

Built in Community
Narrative and Roadmap

Content

Engagement
Narrative and Roadmap

Content

Engagement
Narrative and Roadmap

Content

Engagement
[stackoverflow][docusaurus] How to add a chat bot to a Docusaurus V2 website?

A new question has been asked on StackOverflow related to the facebook/docusaurus repository.

Link: https://stackoverflow.com/questions/57445420/how-to-add-a-chat-bot-to-a-docusaurus-v2-website

This task was filed because your repository has StackOverflow notifications enabled. To change your settings, visit this page.
Docusaurus

Easy to create and maintain open source documentation websites
Features

Markdown

Save time and focus on your project's documentation
Features

**Markdown**
Save time and focus on your project's documentation

**Search**
Make it easy for your community to find what they need
Features

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Localization
Translate your docs into over 70 languages
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React
Change the look and feel of the website using React
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Localization
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React
Change the look and feel of your website using React

Versioning
Support users on all versions of your project
React Native
Learn once, write anywhere.

Get started  Learn basics

Create native apps for Android and iOS using React

React Native combines the best parts of native development with React, a best-in-class JavaScript library for building user interfaces.
Flux

Application architecture for building user interfaces

What is Flux?
Flux is the application architecture that Facebook uses for building client-side web applications.

What does it do?
It complements React’s composable view components by utilizing a unidirectional data flow.

How do I use it?
It's more of a pattern rather than a formal framework, and you can start using Flux immediately without a lot of new code.
For more information:
opensource.facebook.com
Thank You!