

The logo for Red Hat Summit, featuring the words "RED HAT" in a smaller font above "SUMMIT" in a larger, bold font, all contained within a white speech bubble shape.

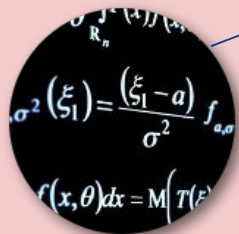
RED HAT
SUMMIT

Artificial Intelligence Tools For Mobile Development

Juana Nakfour
Senior Mobile Technical Account Manager
May 4th, 2017

History and Trends

Artificial Intelligence



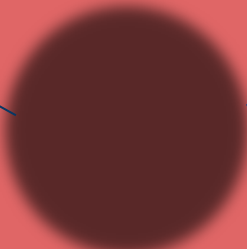
Math

System Architecture



Game Play

AI Winter



Data Analysis



Machine Learning
Deep Learning



Mainframe
Centralized



PC
Distributed



Cloud
Centralized



Sensor
Semi-Distributed

Before 1950

1950s-70s

1970s-90s

1990s-2010

2010-Today

Machine Learning and Computer Vision Mobile Tools



- ✓ Open Source
- ✓ Free
- ✓ Android/iOS/Cordova
- ✗ Cloud Recognition

ARTOOLKIT

- ✓ Open Source
- ✓ Free
- ✓ Android/iOS
- ✗ Cloud Recognition



vuforia™

- ✗ Open Source
- ✗ Free-limited
- ✓ Android/iOS
- ✓ Cloud Recognition



CraftAR

- ✗ Open Source
- ✗ Free-limited
- ✓ Android/iOS/Cordova
- ✓ Cloud Recognition

Natural Language Processing Mobile Tools

wit.ai

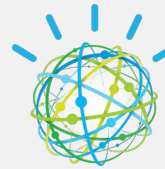
- ✓ Open Source
- ✓ Free
- ✗ Android/iOS/Cordova (no sdk)
- ✓ Cloud Endpoint



- ✗ Open Source
- ✗ Free-limited
- ✓ Android/iOS/Cordova
- ✓ Cloud Endpoint



- ✗ Open Source
- ✗ Pay per voice request
- ✓ Android/iOS
- ✓ Cloud Endpoint



IBM Watson Developer Cloud

- ✗ Open Source
- ✗ Free-Pay per voice request
- ✓ Android/iOS
- ✓ Cloud Endpoint



- ✗ Open Source
- ✗ Free-Pay per voice request
- ✓ Android/C#
- ✓ Cloud Endpoint

Red Hat Mobile Application Platform(RHMAP) + API.AI



RED HAT MOBILE APPLICATION PLATFORM

Projects Analytics Resources Drag & Drop Apps Services & APIs Admin Docs

Home Forms Builder Forms Themes Forms Projects Forms Submissions Lifecycle Data Sources

cardrivetestre...

FORM PAGES
Drag to re-order

cardrivetestreport

Car Make *
What is the Car Make?
Porsche

Car Model *
What is the Car Model?
Boxster Spyder

A Model Year *
What is production year?

A Number of Laps *
How many laps did you drive today?

Track *
We know from your location you are in Nurburgring, is this correct?
Suzuka Circuit

123 **Total Drive Distance (miles) ***

123 **Total Drive Time (min) ***
How many minutes did you drive today?

123 **Average Speed (miles/hr) ***

Save Save & Deploy

api.ai

cardrivetestreport

SAVE

CarTesting

Intents +

Entities +

Domains

Training (beta)

Integrations

Fulfillment

Docs

Forum

Account

Logout

Contexts

User says

Add user expression

I am ready to report

Ready to create report

Events

Action

create-form

REQUIRED	PARAMETER NAME	ENTITY	VALUE	IS LIST	PROMPTS
<input checked="" type="checkbox"/>	carmake	@carmake	\$carmake	<input type="checkbox"/>	What is the Car...
<input checked="" type="checkbox"/>	carmodel	@carmodel	\$carmodel	<input type="checkbox"/>	What is the Car...
<input checked="" type="checkbox"/>	caryear	@sys.number	\$caryear	<input type="checkbox"/>	What is product...
<input checked="" type="checkbox"/>	numberoflaps	@sys.number	\$numberoflaps	<input type="checkbox"/>	How many laps d...
<input checked="" type="checkbox"/>	trackname	@trackname	\$trackname	<input type="checkbox"/>	We know from yo...
<input checked="" type="checkbox"/>	drivetime	@sys.number	\$drivetime	<input type="checkbox"/>	How many minute...



Field Form Preview

Car Model

Name
Car Model

Instructions
What is the Car Model?

Field Code
carmodel

Required
 Validate Immediately
 Admin only (Note: Admin fields will not appear in the client app.)
 Repeating
Min Max

Options

Use a Data Source to populate field options?
Select a Data Source

Include blank

- Boxster Spyder
- Carrera S
- Targa 4S
- Turbo S
- Carrera 4 GTS
- GT3 RS
- Laferrari
- Laferrari Aperta

Action

create-form

REQUIRED	PARAMETER NAME	ENTITY	VALUE	IS LIST	PROMPTS
<input checked="" type="checkbox"/>	carmake	@carmake	\$carmake	<input type="checkbox"/>	What is the Car...
<input checked="" type="checkbox"/>	carmodel	@carmodel	\$carmodel	<input type="checkbox"/>	What is the Car...
<input checked="" type="checkbox"/>	caryear	@sys.number	\$caryear	<input type="checkbox"/>	What is product...
<input checked="" type="checkbox"/>	numberoflaps	@sys.number	\$numberoflaps	<input type="checkbox"/>	How many laps d...
<input checked="" type="checkbox"/>	trackname	@trackname	\$trackname	<input type="checkbox"/>	We know from yo...
<input checked="" type="checkbox"/>	drivetime	@sys.number	\$drivetime	<input type="checkbox"/>	How many minute...
<input checked="" type="checkbox"/>	comment	@sys.any	\$comment	<input type="checkbox"/>	What are your c...
<input type="checkbox"/>	Enter name	Enter entity	Enter value	<input type="checkbox"/>	-

carmodel

Define synonyms Allow automated expansion

Boxster Spyder	Boxster Spyder
Carrera S	Carrera S
Targa 4S	Targa 4S
Turbo S	Turbo S
Carrera 4 GTS	Carrera 4 GTS
GT3 RS	GT3 RS
Laferrari	Laferrari
Laferrari Aperta	Laferrari Aperta
f12berlinetta	f12berlinetta

[Click here to edit entry](#)

RHMAP + API.AI

The screenshot displays the Red Hat Mobile Application Platform (RHMAP) interface. The top navigation bar includes 'RED HAT MOBILE APPLICATION PLATFORM', 'FormsAndAI', and various menu items like 'Projects', 'Analytics', 'Resources', 'Drag & Drop Apps', 'Services & APIs', 'Admin', and 'Docs'. Below the navigation bar, there are tabs for 'FormsAndAI', 'Apps, Cloud Apps & Services', 'Connections', 'Resources', 'Lifecycle', 'Forms', 'Reporting', and 'Settings'. The main content area is titled 'FormsAndAI' and 'Apps, Cloud Apps & Services'. It features two columns of app cards. The left column, titled 'Apps', lists three items: 'FormsAndAIAdvancedMaster' (Cordova, updated 6 hours ago), 'Cordova Forms App' (Cordova, updated 7 days ago), and 'SetupApiAi' (Advanced Web App, updated 6 days ago). The right column, titled 'Cloud Code Apps', lists one item: 'Cloud App' (Node.js Cloud App, updated a day ago). Each app card includes a 'Copy' button and a Git repository link. To the left of the interface, a smartphone displays a form titled 'card@redhatreport' with fields for 'Name', 'Email', 'Phone', 'Address', and 'Number of apps'. Below the smartphone, a browser window shows a first-person view of a car driving on a road, with a green circular 'POWER' button overlaid on the center of the road. Arrows indicate the flow of data and interaction between the smartphone, the browser, and the RHMAP interface.



Demo 1: Create Intents and Entities

Demo 2: Mobile Application

Thank You



@Nak4Red

#RHTAM

Red Hat TAM Blog

Source Code

RHMAP CloudApp: <https://github.com/nakfour/apiai-form-cloudapp>

RHMAP Mobile Client: <https://github.com/nakfour/apiai-form-template>

RHMAP Web Client: <https://github.com/nakfour/apiai-form-webapp>

Thank you RHMAP team members

- Niall Donnelly
- John Frizzell

References

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<https://www.redhat.com/en/about/blog/technical-account-managers>

<https://api.ai/>

https://www.youtube.com/watch?v=bEv_uFBnzwI

<https://nurburgringlaptimes.com/lap-times-top-100/>



THANK YOU



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facebook.com/redhatinc



linkedin.com/company/red-hat



twitter.com/RedHatNews



youtube.com/user/RedHatVideos

The logo for Red Hat Summit, featuring the text "RED HAT" in a smaller font above "SUMMIT" in a larger, bold font, all contained within a white speech bubble shape.

**RED HAT
SUMMIT**

**LEARN. NETWORK.
EXPERIENCE
OPEN SOURCE.**