

Cognitive Service와 Microsoft 오픈소스 전략

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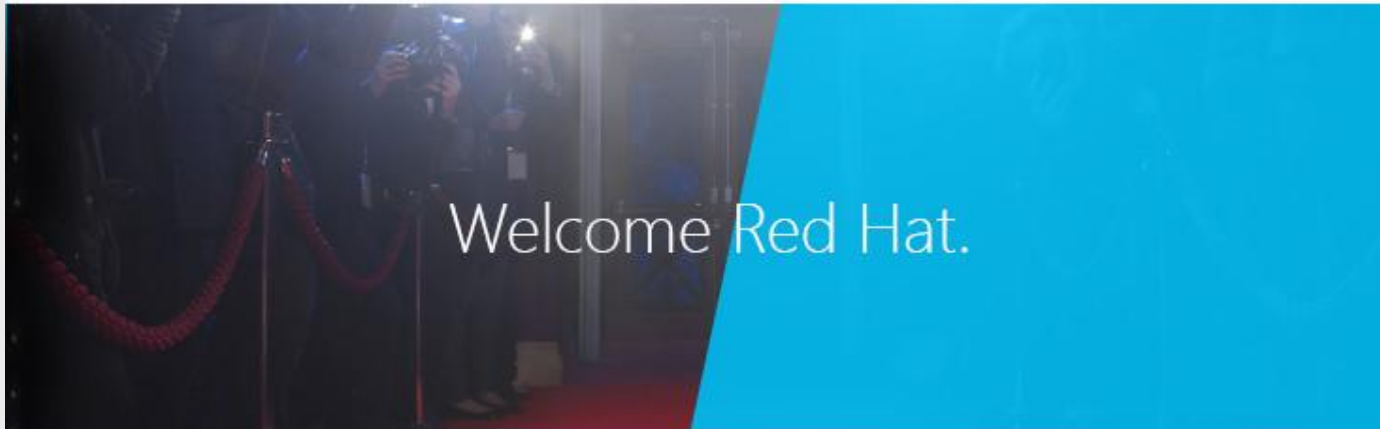




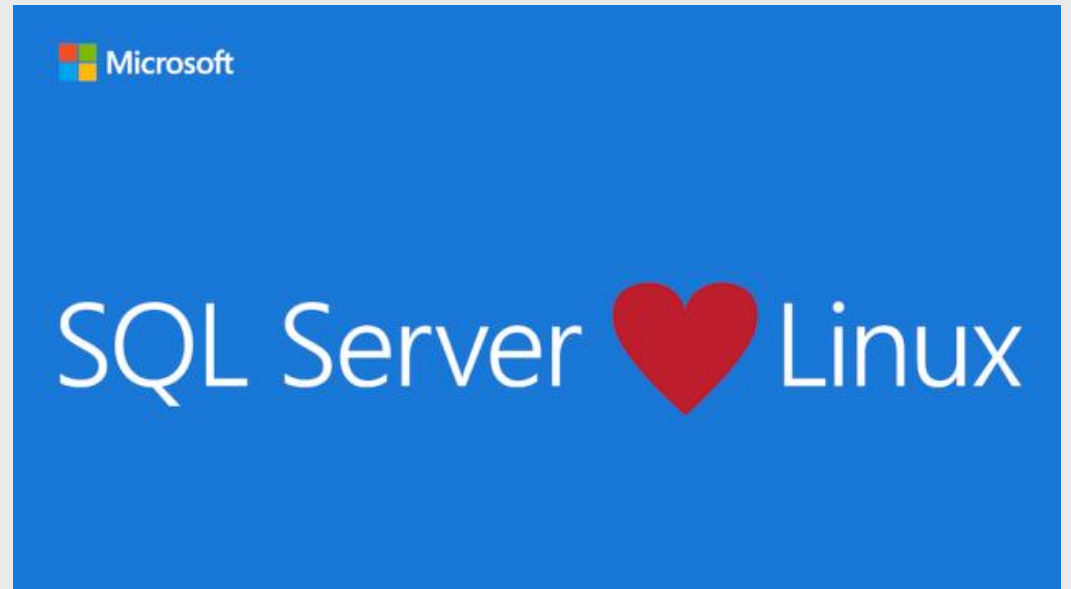
Microsoft
LOVE ❤️



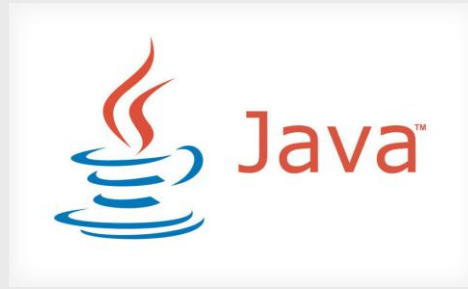
Microsoft Azure



[Learn more about our new partnership](#) ➔



Microsoft ❤️ Open Source



PHP Tools for Visual Studio



NTVS(Node.js Tools for Visual Studio)

RTVS(R Tools for Visual Studio)



ubuntu

Visual C++ for Linux



Microsoft Azure

Microsoft **is** Open Source

.NET Core

Windows Store
App Model

The Roslyn project

Meta-programming

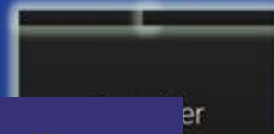
Language
Object Model



Read-Eval-Pr

DSL Embed

Source
File



Asser

TypeScript

JavaScript that scales.

TypeScript is a typed superset of JavaScript that compiles to plain JavaScript.

Any OS. Open source.

Visual Studio Code

Docs Updates Blog Extensions FAQ

Star 13,412

Announcing Version 1.0! Read about the journey in our bl

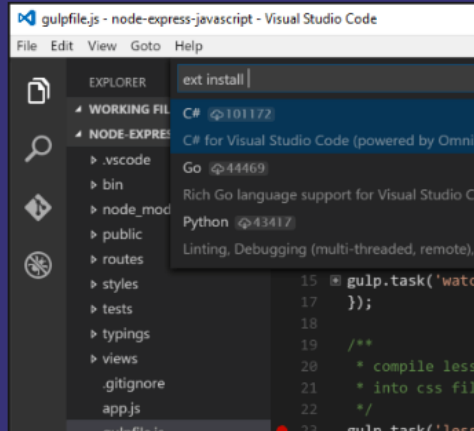
Code editing. Redefined.

Free. Open source. Runs everywhere.

Download for Windows

Available on other platforms

By using VS Code, you agree to its license and privacy statement.



Microsoft

Open source, from Microsoft with love

Redmond, WA [http://www.microsoft.com/...](http://www.microsoft.com/) oss@microsoft.com

Repositories

People 1,718

Filters

Find a repository...

vscode-docs

JavaScript ★ 276 📄 187

Public documentation for Visual Studio Code

Updated a minute ago

MIEngine

C# ★ 296 📄 83

The Visual Studio MI Debug Engine ("MIEngine") provides an open-source Visual Studio Debugger extension that works with MI-enabled debuggers such as gdb, lldb, and clrdbg.

Updated 4 minutes ago

Mobius

C# ★ 247 📄 60

C# language binding and extensions to Apache Spark



Microsoft Build 2017



Exhibit Hall 4E





Announcing new Azure Services
PostgreSQL as a Service
MySQL as a Service

Built-in high-availability and security

Elastically scale up or down with no application downtime

100% compatible with all existing drivers, libraries, tools

Store

Home Apps Games Music Movies & TV Books

Search

Ubuntu

Canonical Group Ltd.

★★★★★
This product is installed

Launch Share

Everyone More

Screenshots



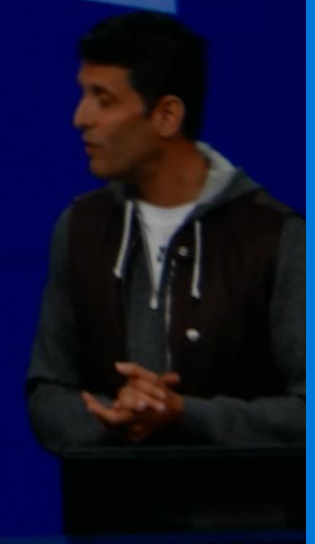
Description

Ubuntu, one of the leading Linux distros is now available on Windows 10.

Using Ubuntu, you'll be able to run your favorite Linux and Open Source command-line developer tools alongside your favorite Windows developer tools.

Bash on Windows runs Ubuntu user-mode binaries by Canonical. This means the command-line utilities are the same as those that run within a native Ubuntu environment. Ubuntu requires the Windows Subsystem for Linux optional component to be enabled before it can be run.

9:41 AM 3/11/2017



MAKING IT MUCH EASIER TO SET
UBUNTU ON WINDOWS 10 BY BRING

Microsoft와 Machine Learning

Answering questions with experience



Machine learning은 Microsoft 제품에 폭넓게 적용

인공지능이 못하는 것?

중국의 기사 자동작성 인공지능 프로그램, 1분에 1천자분량 경제기사 작성

■ 아날로그/공정, 제작과정, 노동대체 2015.09.18 Posted by pcgeeks.tistory.com · 펌보다 링크를

태그 기사 자동작성, 인공지능, 콘텐츠 자동 생산

즈시 크소우지의 표차버

‘뉴욕타임스’, 머신러닝 기반 자동 태그 시스템 개발

BY 채반석 ON 2015.08.03

<뉴욕타임스>의 기사

2016-03-17 11:30

지난 7월30일 니먼랩 개발했다고 보도했다.

픽토뮤직연구소, 인공지능 작곡

사진을 찍으면 바로 작곡이 된다
인공지능, 음악 영역에 도전장 ‘이제 누
인간의 예술영역 더욱 풍부해지고 넓어



성남--(뉴스와이어) 2016년 03월 17일
돌(33) 9단으로 인하여 세간의 이목이
작곡의 대중화를 위해 인공지능 작곡 기

오래 전부터 인류는 인간이 아닌 기계가
발한 인공지능 ‘쿨리타’는 기존 악보를
고난도의 음계를 재조합하여 작곡이 기

서울대 인지과학연구소의 장병탁 소장
수 있는데, 그러한 것들을 잘 결합함으로
해 낼 수 있다”고 말했다.

때문에 쿨리타는 아직은 정교한 음악 요소의 재조합에 불과할 뿐 창작으로 볼 수 없다는 의견도 있
다. 하지만 인공지능이 인간의 그윽한 영역이라고 생각했던 예술 분야에 발을 디딘 것만은 분명해



Experiments - Microsoft Passau Preview - Internet Explorer
https://passau.kg.cloudapp.net/Home/ViewWorkspace/1fb737473e974043b901841fd7ae3d72#Workspaces/Experiments/Experiment/1fb737473e974043b901841fd7ae3d72.b1e398e7b4214028867ecea4e4242eb/ViewExperiment

File Edit View Favorites Tools Help

ML Studio Enter feedback here jammc's Workspace Menu

Iris Experiment

Finished running ✓

```
graph TD; A[Iris Three Class Data] --> B[Missing Values Scrubber]; B --> C[Project Columns]; C --> D[Metadata Editor]; D --> E[Split]; E --> F[Neural Network Multiclass Clas...]; E --> G[Enter Data]; F --> H[Train Model]; H --> I[Score Model]; H --> J[Score Model]; H --> K[Score Model]; G --> I; G --> J; G --> K; I --> L[Evaluate Model]; J --> L; K --> L;
```

Properties

Neural Network Multiclass Classi...

- Hidden layer specification: Fully-connected case
- Number of hidden nodes: 100
- The initial learning weights dia...: 0.1
- The learning rate: 0.1
- The momentum: 0
- The type of normalizer: Binning normalizer
- Number of learning iterations: 100
- Shuffle examples
- Random number seed: 0
- Allow unknown categoral...

START TIME 6/18/2014 5:5...
END TIME 6/18/2014 5:5...
ELAPSED TIME 0:00:01.765
STATUS CODE Finished
STATUS DETAILS None

Quick Help
Create a multiclass classifier using a neural network algorithm
[More info...](#)

NEW VIEW RUN HISTORY SAVE SAVE AS DISCARD CHANGES REFRESH CANCEL RUN PUBLISH WEB SERVICE

90%

AI for workplace safety



10:25:25

CAM 02

STORAGE AREA 04



Workplace Safety

Today at 8:34 AM

Hi

Where is a jackhammer

There is a jackhammer in the construction yard.

Show me non employees on the job site

Delivered

say something...

Send

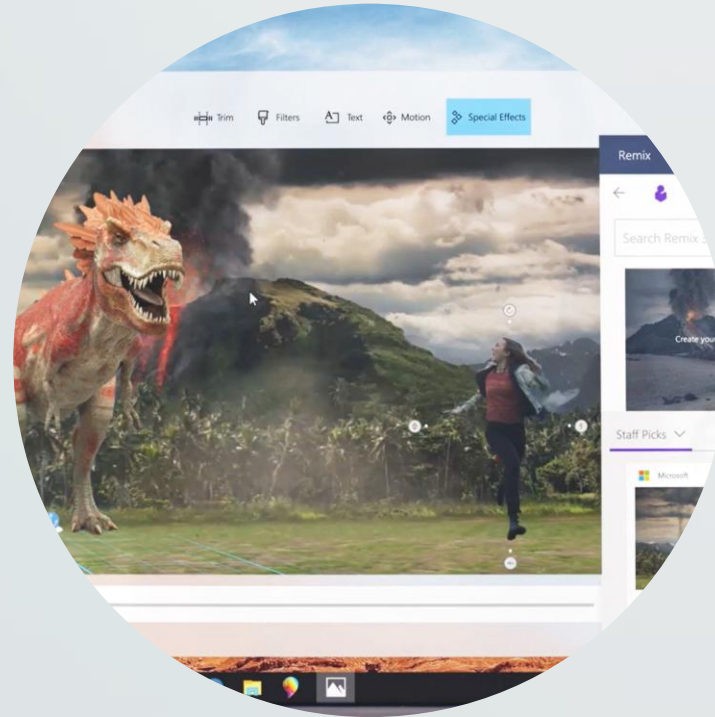


A N N O U N C I N G

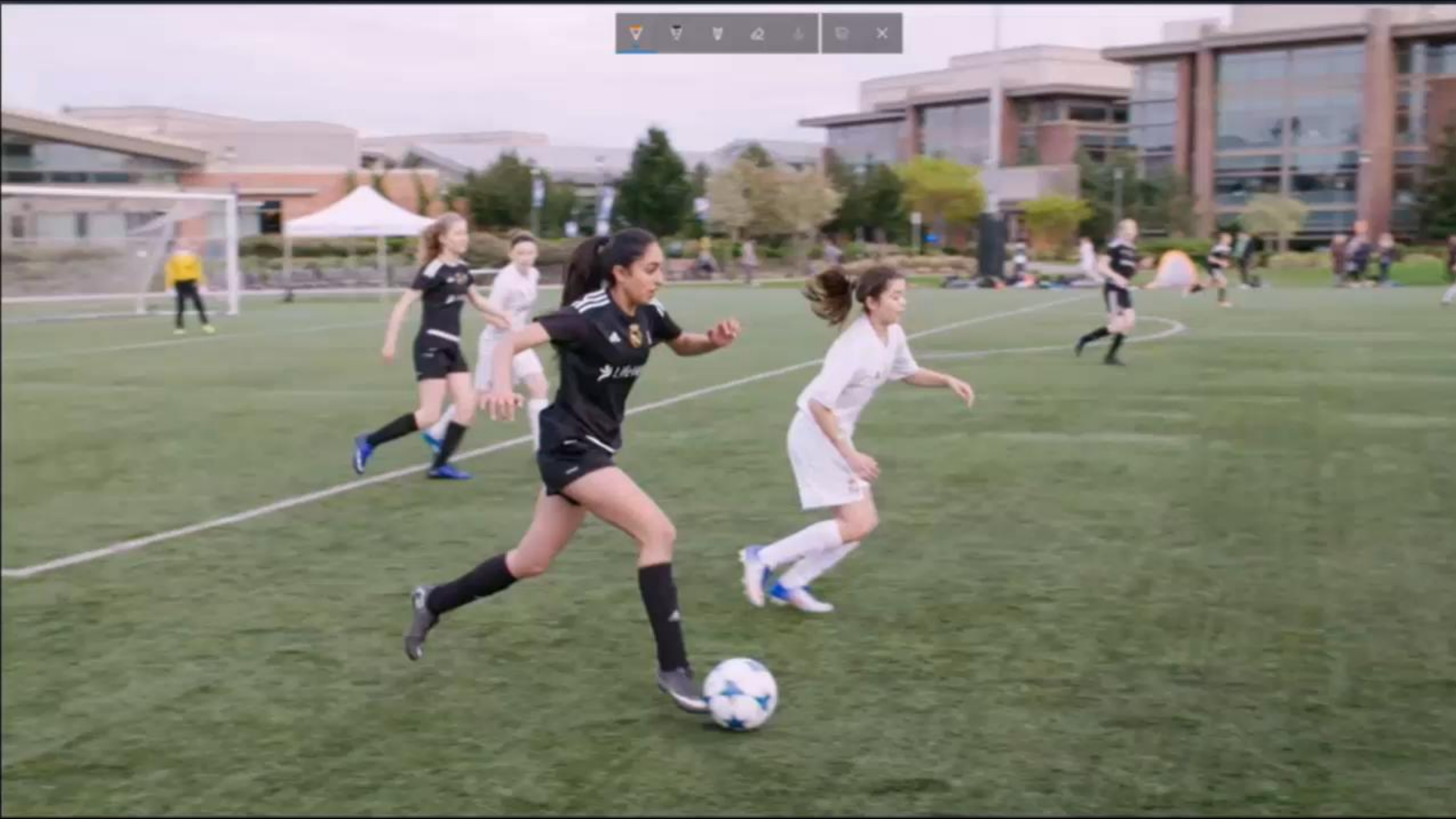


Fall Creators Update

ANNOUNCING



Windows Story Remix







최신기사

뉴스 홈 > 최신기사

부산에 MS 데이터센터 건립...클라우드허브 도약 기대

송고시간 | 2016/05/11 11:38

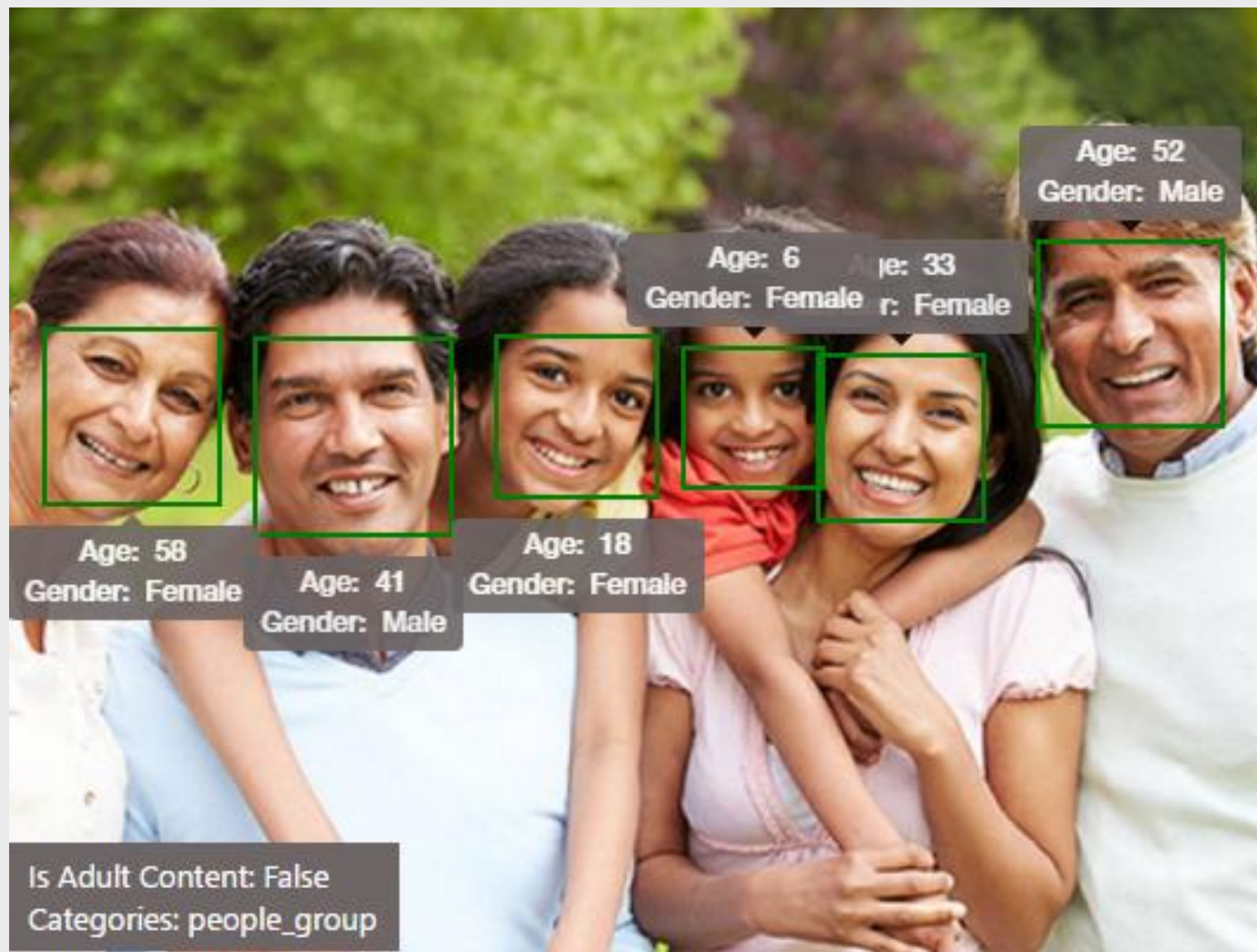


부산시, 한국MS 협약...앵커시설로 글로벌기업유치 기대

(부산=연합뉴스) 김상현 기자 = 글로벌 기업인 마이크로소프트가 부산 강서구 미음단지
에 아시아권 데이터센터를 짓기로 하면서 부산이 글로벌 클라우드 허브로 도약할 수 있
는 기회를 잡았다.

Datacenter in Korea

New Cognitive





flowers by

40 OLD TOWN
BIRKSEN
(020) 76226466

40 OLD TOWN
BIRKSEN
(020) 76226466

ROU-OR


LOOK

Variety of Creative Apps

 **How-Old.net**
HOW OLD DO I LOOK? #HowOldRobot



Sorry if we didn't quite get the age and gender right - we are still improving this feature

 **Try Another Photo!**

 **TwinsOrNot.net**
Are you twins? #TwinsOrNotRobot



 [Help us improve](#) or [start over](#)

You can also click a pic to compare to someone new

Powered by Project Oxford

 365  1.85K

[Privacy & Cookies](#) | [Terms of Use](#) | [Trademark](#) | © 2015 Microsoft



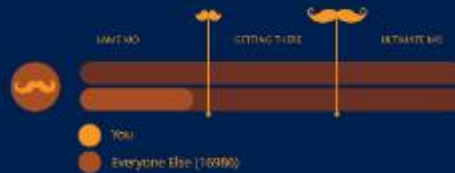
 **MyMoustache.net**
15,381 faces analyzed and counting #MyMoustacheRobot



[De-stache Me!](#) [Try Again!](#)

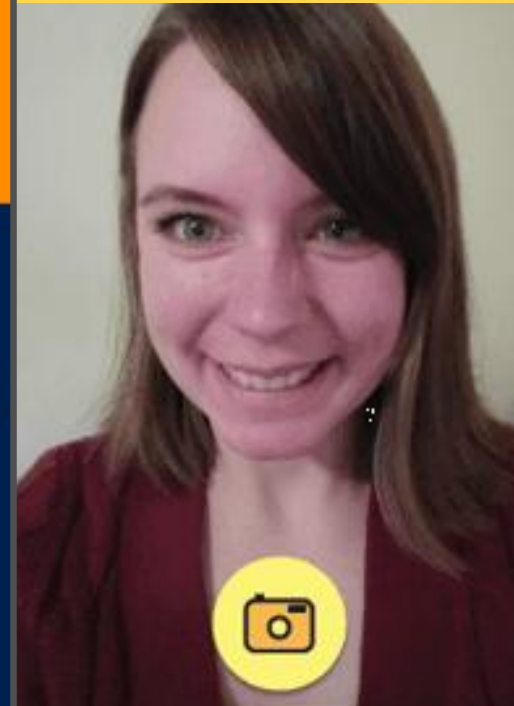
Sorry if we didn't quite get the moustache quite right - we are still improving this feature

It doesn't look like you have a moustache! #NOSTACHE



 **Mimicker Alarm**

Mimic a **happy** face



CaptionBot

I think it's a young man jumping in the air on a skateboard.



How did I do?



[Try another](#)

The Magic behind CaptionBot.ai

Powered by Microsoft Cognitive Services



Cognitive Toolkit



Language

Forecasting

Entity linking

Bing news search

Customer feedback analysis

Text analytics

Thumbnail generation

Web language model



Knowledge

Anomaly detection

Sentiment scoring

Bing autosuggest



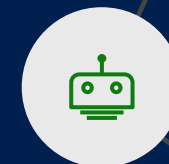
Search



Speech

Recommendation API

Custom recognition (CRIS)



Machine Learning

Text to speech

Speech API

Bing image search



Vision

OCR, tagging, captioning

Bing web search

Computer vision

Emotion

Academic knowledge

Spell check



Future of Order Taking

drivethru.wav

Start Recognition

Cognitive Services



Computer vision

Face

Emotion

Content Moderator

Video

NEW

Video Indexer

NEW

Cognitive Services Labs

Text analytics

Spell check

Web language
model

Linguistic analysis

Translator

Speaker recognition

Speech

Web search

Image search

Video search

News search

Autosuggest

Academic knowledge

Entity linking service

Knowledge
exploration

Recommendations

QnA maker

Cognitive Services



Vision



Language



Speech



Search



Knowledge

Computer vision
Face
Emotion
Content Moderator
Video

NEW
Video Indexer

NEW
Cognitive Services Labs

Text analytics
Spell check
Web language model
Linguistic analysis
Translator

Speaker recognition
Speech

Web search
Image search
Video search
News search
Autosuggest

Academic knowledge
Entity linking service
Knowledge exploration
Recommendations
QnA maker

NEW
Custom
Vision Service

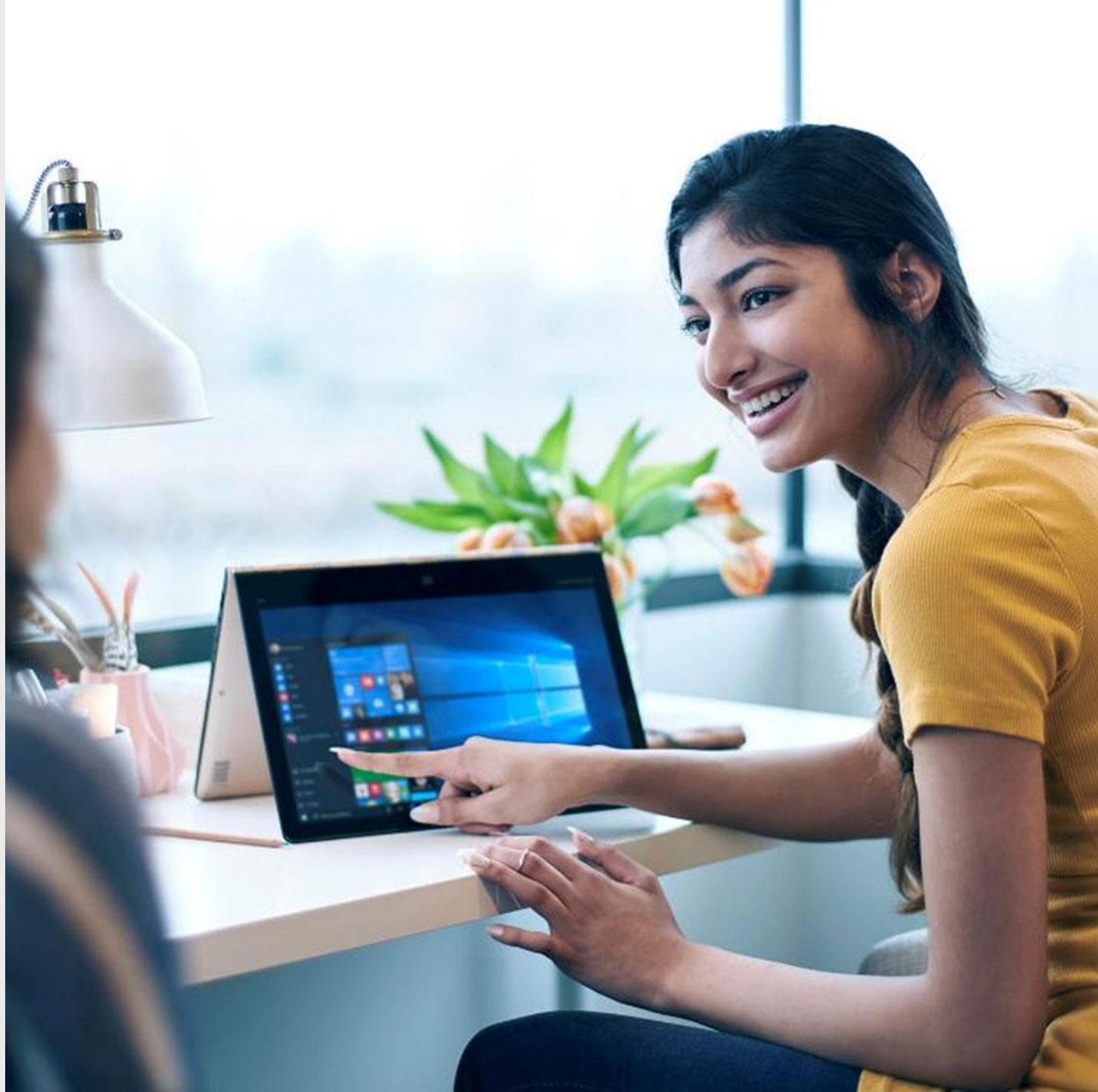
Custom
Language Understanding

Custom
Speech Service

NEW
Custom
Search

NEW
Custom
Decision Service

Video Indexer



Custom Vision | Custom Vision: PlantBot | Microsoft Bot Framework | Adaptive Card Visualizer

demo.customvision.ai/projects/3e4f9ddbe-30e4-4c51-a923-1fc1024a8a794/manage


Custom Vision | PlantBot v2 | TRAINING IMAGES | PERFORMANCE | PREDICTIONS | Train | Quick Test | Sign out

Refine | Add images | Delete | Tag images | Select all | 1 2 3 4 5

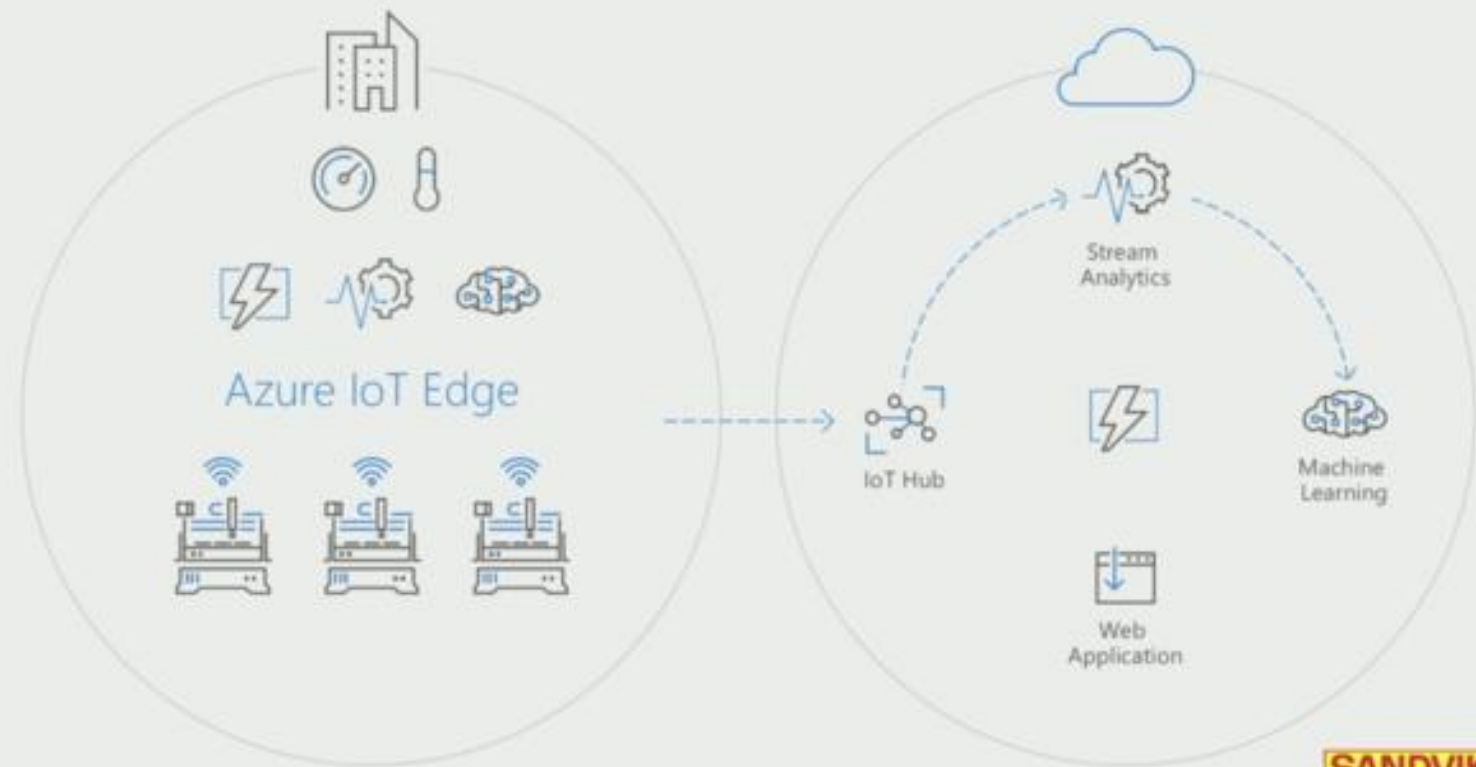
Workspace | Iteration History

Tags

- All (428)
- Cypress (34)
- False Lily of the Valley (50)
- Fern (31)
- Hemlock (39)
- Japanese Flowering Cherry (31)
- Japanese Maple (41)
- Japanese Pine (58)
- Japanese Snowball (55)
- Rhododendron (40)
- Tea Camellia (49)
- Untagged (570)



Azure Batch AI Training



Azure + AI

Cognitive Toolkit

TensorFlow

Caffe

Data platform

Data Lake

NEW

Cosmos DB

SQL Server

Tools

Visual Studio | Azure Machine Learning | Bot Framework

Cognitive Toolkit | TensorFlow | Caffe