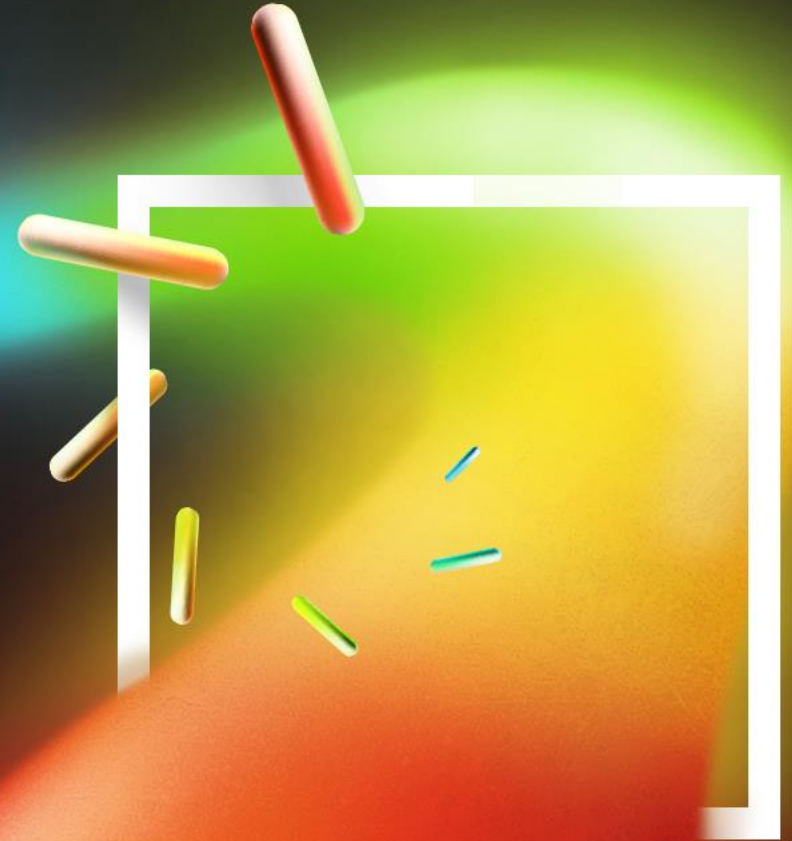




Microsoft Everywhere 2022





Microsoft Everywhere 2022

Series 4

Enable: 새로운 가능성을 만드는 개발

2022년 4월 27일(수) 오후 2시 - 6시





개발자에게 힘을, 데이터 전문가에게는 자유를, Azure AI

김영욱 MVP
IT 스페셜리스트 / Hello AI 대표
youngwook@outlook.com

Microsoft Everywhere 2022

Series 4

Enable: 새로운 가능성을 만드는 개발



강사 프로필



김영욱

Hello AI

약력

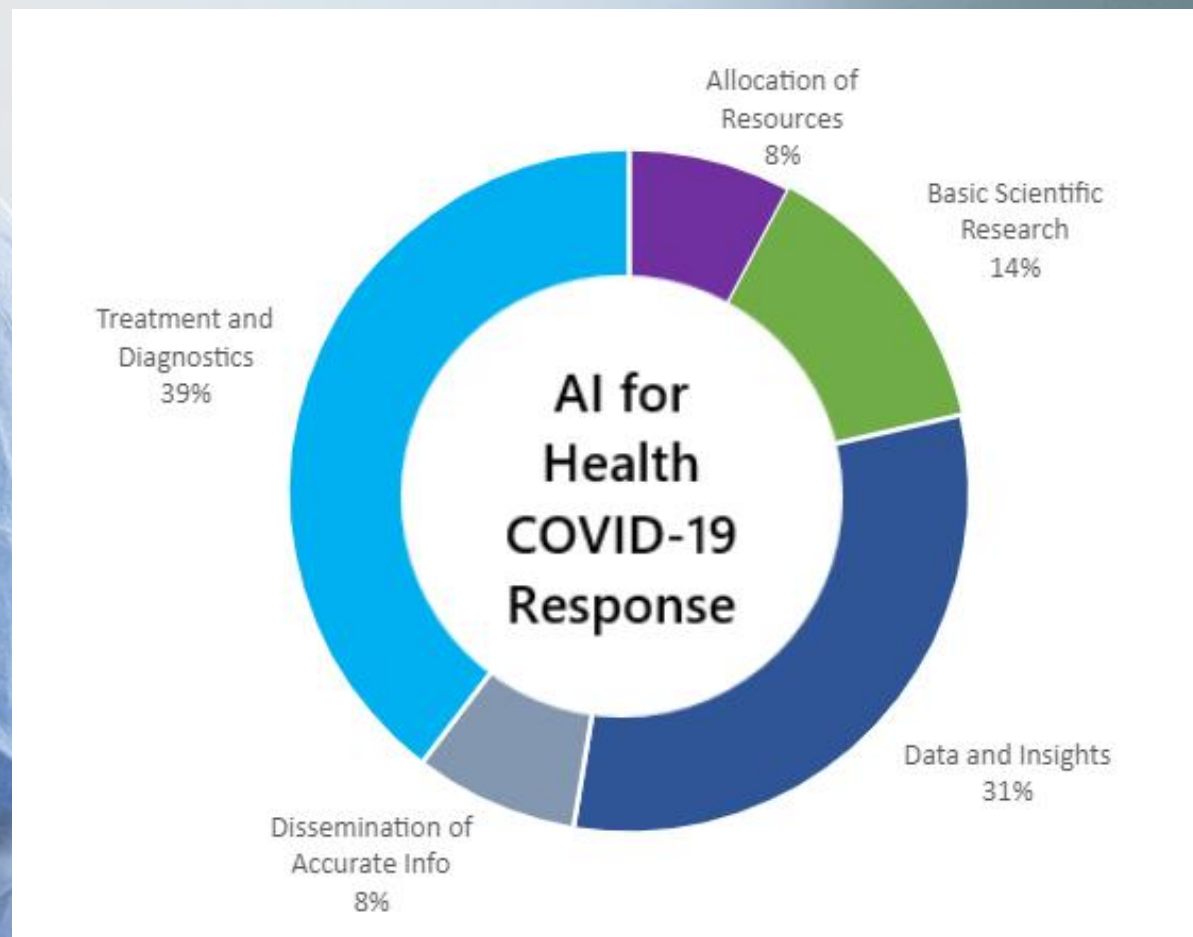
- Hello AI
- Microsoft
 - Technical Evangelist
 - Software Engineer
 - Account Technology Strategist
- MCT(Microsoft Certificate Trainer)
- Microsoft MVP
 - Azure MVP 2021
 - ASP.NET MVP 2006~2008
- 저서
 - '가장 빨리 만나는 챗봇 프로그래밍'
 - 'War of IT' 출간 (지앤선 출판사)
- 웹 접근성 2.0 표준 자문위원
- 디지털 교과서 프로젝트 리더
- 한국방송통신대학교 출강(2020년)
- 인천재능대학교 출강(2021년)
- 국가과학기술인력개발원 KIRD
 - 최우수강사 2018, 2020




```
*  
* @var boolean  
*/  
define('PSI_INTERNAL_XML', false);  
  
if (version_compare("5.2", PHP_VERSION, ">")) {  
    die("PHP 5.2 or greater is required!!!");  
}  
if (!extension_loaded("pcre")) {  
    die("phpSysInfo requires the pcre extension to php in order to work  
    properly.");  
}
```

AI

```
require_once APP_ROOT.'/includes/autoload.inc.php';  
  
// Load configuration  
require_once APP_ROOT.'/config.php';  
  
if (!defined('PSI_CONFIG_FILE') || !defined('PSI_DEBUG')) {  
    $tpl = new Template("/templates/html/error_config.html");  
    echo $tpl->fetch();  
    die();  
}
```



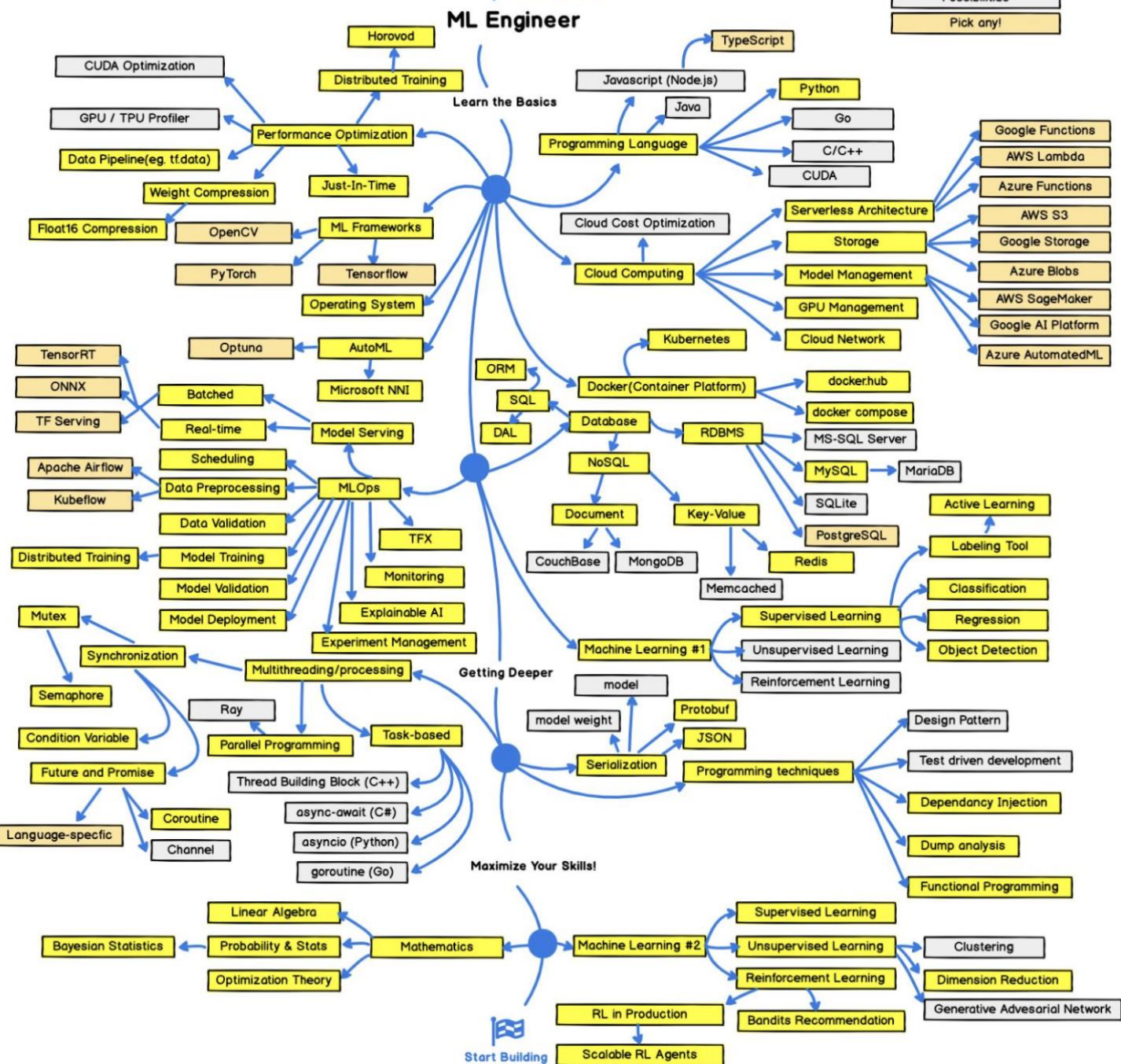

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}
```

AI Skill

```
require_once APP_ROOT.'/includes/autoload.inc.php';  
  
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    echo $tpl->fetch();  
    die();  
}
```

<https://github.com/chris-chris/ml-engineer-roadmap>
@chris_loves_ai

Legends
Personal Recommendation!
Possibilities
Pick any!



<https://www.kaggle.com/getting-started/174107>

DATA & AI LANDSCAPE 2019

INFRASTRUCTURE

HADOOP ON-PREMISE

- cloudera
- Hadoop
- MAPR
- Pivotal
- IBM InfoSphere
- tez

HADOOP IN THE CLOUD

- aws
- Microsoft Azure
- Google Cloud
- Cloud Platform
- IBM InfoSphere BigInsights
- GORM
- Databricks
- CAZENA

STREAMING / IN-MEMORY

- Apache Kinesis
- Amazon Redshift
- Google Cloud Platform
- IBM InfoSphere
- Hadoop
- GORM
- Databricks
- CAZENA

The collage displays logos for various cloud services, organized into six categories:

- NO SQL DATABASES:** Includes Google Cloud, AWS, Oracle, IBM, Microsoft Azure, and Google Cloud.
- NewSQL DATABASES:** Includes SAP, Clustrix, Pivotal, Amazon, Microsoft Azure, and Google Cloud.
- GRAPH DBs:** Includes Neo4j, Amazon Neptune, IBM, Oracle, and Microsoft Azure.
- MPP DBs:** Includes Teradata, Vertica, IBM, Microsoft Azure, and Google Cloud.
- CLOUD EDW:** Includes AWS, Google Cloud, Microsoft Azure, Pivotal, Amazon Redshift, and Google Cloud.
- SERVERLESS:** Includes AWS, Google Cloud, Microsoft Azure, Pivotal, Amazon Redshift, and Google Cloud.

[illegible]

STORAGE

- Microsoft Azure
- Amazon S3
- Google Cloud
- IBM Cloud
- Oracle Cloud
- Alibaba Cloud
- NetScout Systems
- CDNetworks

CLUSTER SVCS

- Amazon EMR
- Google Cloud
- IBM Cloud
- Oracle Cloud
- Alibaba Cloud
- NetScout Systems
- CDNetworks

DATA GENERATION & CAPABILITY

- Amazon EMR
- Google Cloud
- IBM Cloud
- Oracle Cloud
- Alibaba Cloud
- NetScout Systems
- CDNetworks

AI OPS

- Amazon EMR
- Google Cloud
- IBM Cloud
- Oracle Cloud
- Alibaba Cloud
- NetScout Systems
- CDNetworks

GPU DBs & CLOUD

- Amazon EMR
- Google Cloud
- IBM Cloud
- Oracle Cloud
- Alibaba Cloud
- NetScout Systems
- CDNetworks

HARDWARE

- Google TV
- Google Cloud
- IBM Cloud
- Oracle Cloud
- Alibaba Cloud
- NetScout Systems
- CDNetworks

CROSS-INFRASTRUCTUREANALYTICS



















ANALYTICS & MACHINE INTELLIGENCE

DATA ANALYST PLATFORMS

- Microsoft
- Databricks
- Alteryx
- SAP Business
- QlikView
- SAP Analytics Cloud

DATA SCIENCE PLATFORMS

- IBM
- Databricks
- Dataiku
- SAS
- SAP Analytics Cloud

The collage is organized into three columns:

- DATA PLATFORMS:** Includes logos for iScalar, AWS, Databricks, Amazon SageMaker, ThoughtSpot, AT&T, Databricks, Qlik, Google, and Birst.
- VISUALIZATION:** Includes logos for Tableau, Power BI, SAP, Google Cloud, Celonis, Alteryx, SAP, and Oracle.
- MACHINE LEARNING:** Includes logos for IBM, Microsoft, H2O, Amazon SageMaker, Gammon, Vizio, and Element.

The collage is organized into three distinct sections, each with a title and a collection of company logos:

- COMPUTER VISION:** Includes logos for Microsoft Azure, IBM Watson, Clarifai, OpenCV, and others.
- HORIZONTAL AI:** Includes logos for Google Cloud, IBM Watson, and various other AI service providers.
- SPEECH & MLP:** Includes logos for Google Cloud, IBM Watson, and various other AI service providers.

The collage displays logos for several digital marketing and analytics tools, organized into four columns:

- SEARCH**: Includes logos for SEMrush, Ahrefs, Moz, Majestic, SpyFu, SERPWatcher, and SimilarWeb.
- BLOG ANALYTICS**: Includes logos for Statista, SumoLogic, Soliloquy, BuzzSumo, and Legato.
- SOCIAL ANALYTICS**: Includes logos for Hootsuite, SproutSocial, NetBase, Synthesio, Duxia, SimpleReach, Bitly, and SimilarWeb.
- WEB / MOBILE / COMMERCE ANALYTICS**: Includes logos for Google Analytics, Mixpanel, Amplitude, Airtable, Resc, Shogot, and Gracify.

OPEN SOURCE

[illegible]

DATA SOURCES & API

[illegible]

APPLICATIONS – ENTERPRISE

SALES CHORUS INDESALES.com people.ai connecta.com

MARKETING - B2B RADIUS App Annie EVERETT MEDIA Lattice HIRTOC sense

MARKETING - B2C 2025 MarketReach SendGrid Image ACTION BLUEBIRD EVERETT MEDIA YETI 2025

CUSTOMER EXPERIENCE / SERVICE qualtrics MEDALLIA SurveyMonkey CLARABAR.com zendesk Customer Success

ENTERPRISE PRODUCTIVITY slack ORACLE GURU Jumbi

CRM Aircall tact.ai Invoia

hubs hubspot

zend zendesk

knock mple

Amplitude Segment

EngelBots ASAP

GetUx uxcel

ad adform

alt alt

ta ta

cas cas

[illegible]

APPLICATIONS – INDUSTRY

The banner displays a variety of startup logos organized into eight color-coded columns, each representing a different industry sector. The categories and their respective logos are as follows:

- ADVERTISING:** Includes logos for Appinions, iStockphoto, Criteo, Moat, The Trade Desk, and Tapad.
- EDUCATION:** Includes logos for Coursera, FutureLearn, and FutureLearn.
- REAL ESTATE:** Includes logos for Redfin, Opener, VTS, and Zillow.
- GOV'T:** Includes logos for eScriber, iStockphoto, and iStockphoto.
- INTELLIGENCE:** Includes logos for Palantir, Qandari, and Qandari.
- FINANCE - INVESTING:** Includes logos for onDeck, K12, and K12.
- FINANCE - LENDING:** Includes logos for onDeck, K12, and K12.
- INSURANCE:** Includes logos for iStockphoto, iStockphoto, and iStockphoto.

[illegible]

DATA RESOURCES

DATA SERVICES

- OCEBA
- ARIES
- Facebook
- Google
- DataCamp
- DataSine
- FINSIGHT
- The Data Incubator
- HETERO

INCUBATORS & SCHOOLS

- OpenAI
- Facebook research
- MIRI
- VECTRA INSTITUTE
- AIZ

RESEARCH

```
*  
* @var boolean  
*/  
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if (version_compare("5.2", PHP_VERSION, ">")) {  
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    die("phpSysInfo requires the pcre extension to php in order to work  
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}
```

Azure AI

```
require_once APP_ROOT.'/includes/autoload.inc.php';  
  
// Load configuration  
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    $tpl = new Template("/templates/html/error_config.html");  
    echo $tpl->fetch();  
    die();  
}
```

Machine Learning on Azure

Domain Specific Pretrained Models

To reduce time to market



Vision



Speech



Language



Search

Familiar Data Science Tools

To simplify model development



PyCharm



Jupyter



Visual Studio Code



Command line

Popular Frameworks

To build machine learning and deep learning solutions



PyTorch



TensorFlow



Scikit-Learn



ONNX

Productive Services

To empower data science and development teams



Azure
Databricks



Azure Machine Learning



Machine
Learning VMs

Powerful Hardware

To accelerate deep learning



CPU



GPU



FPGA

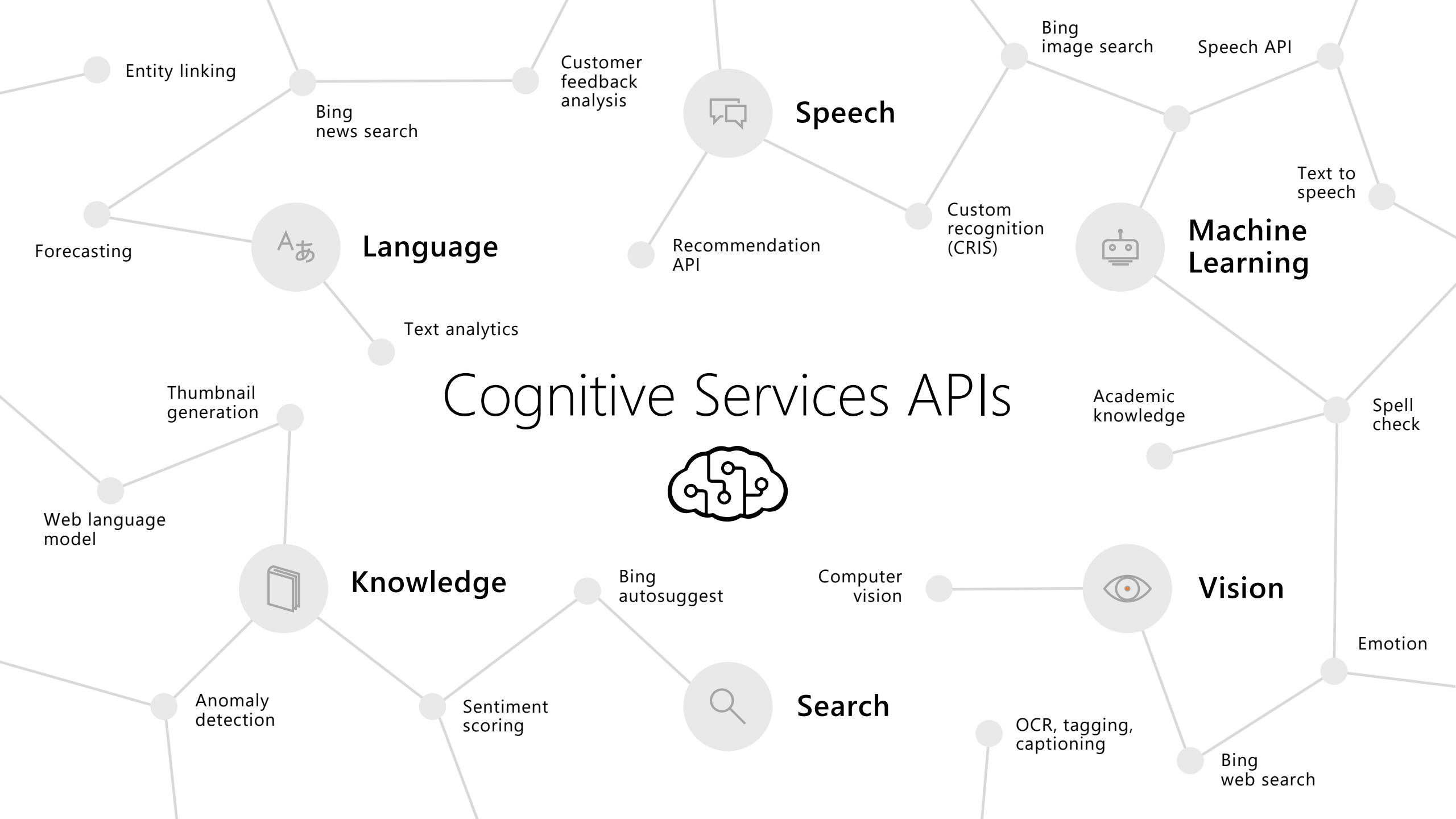


From the Intelligent Cloud to the Intelligent Edge




```
*  
* @var boolean  
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define('PSI_INTERNAL_XML', false);  
  
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}  
  
if (!extension_loaded("pcre")) {  
    die("phpSysInfo requires the pcre extension to php in order to work  
    properly.");  
}  
  
require_once APP_ROOT.'/includes/autoLoader/inc.php';  
  
// Load configuration  
require_once APP_ROOT.'/config.php';  
  
if (!defined('PSI_CONFIG_FILE') || !defined('PSI_DEBUG')) {  
    $tpl = new Template("/templates/html/error_config.html");  
    echo $tpl->fetch();  
    die();  
}
```

개발자에게 힘을 Azure AI



Compute Vision



Face

OCR

Custom Vision

Compute Vision

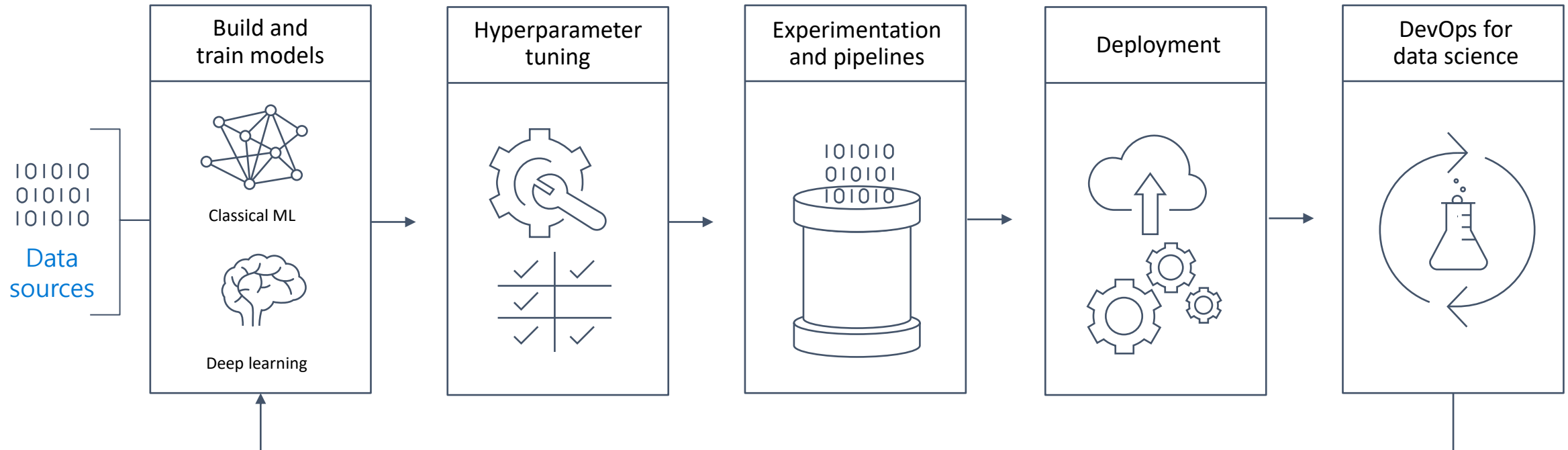
| FEATURE NAME: | VALUE |
|---------------|--|
| Description | { "tags": ["water", "swimming", "sport", "pool", "person", "man", "frisbee", "ocean", "blue", "bird", "riding", "top", "standing", "wave", "young", "body", "large", "game", "glass", "pond", "playing", "board", "catch", "clear", "boat", "white"], "captions": [{ "text": "a man swimming in a pool of water", "confidence": 0.8909298 }] } |
| Tags | [{ "name": "water", "confidence": 0.9997857 }, { "name": "swimming", "confidence": 0.955619633 }, { "name": "sport", "confidence": 0.3807831 }, { "name": "pool", "confidence": 0.889862537 }, { "name": "person", "confidence": 0.889862537 }, { "name": "water sport", "confidence": 0.664259 }] |
| Image format | "Jpeg" |




```
*  
* @var boolean  
*/  
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if (version_compare("5.2", PHP_VERSION, ">")) {  
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    echo $tpl->fetch();  
    die();  
}
```

데이터 전문가에게 자유를 Azure AI

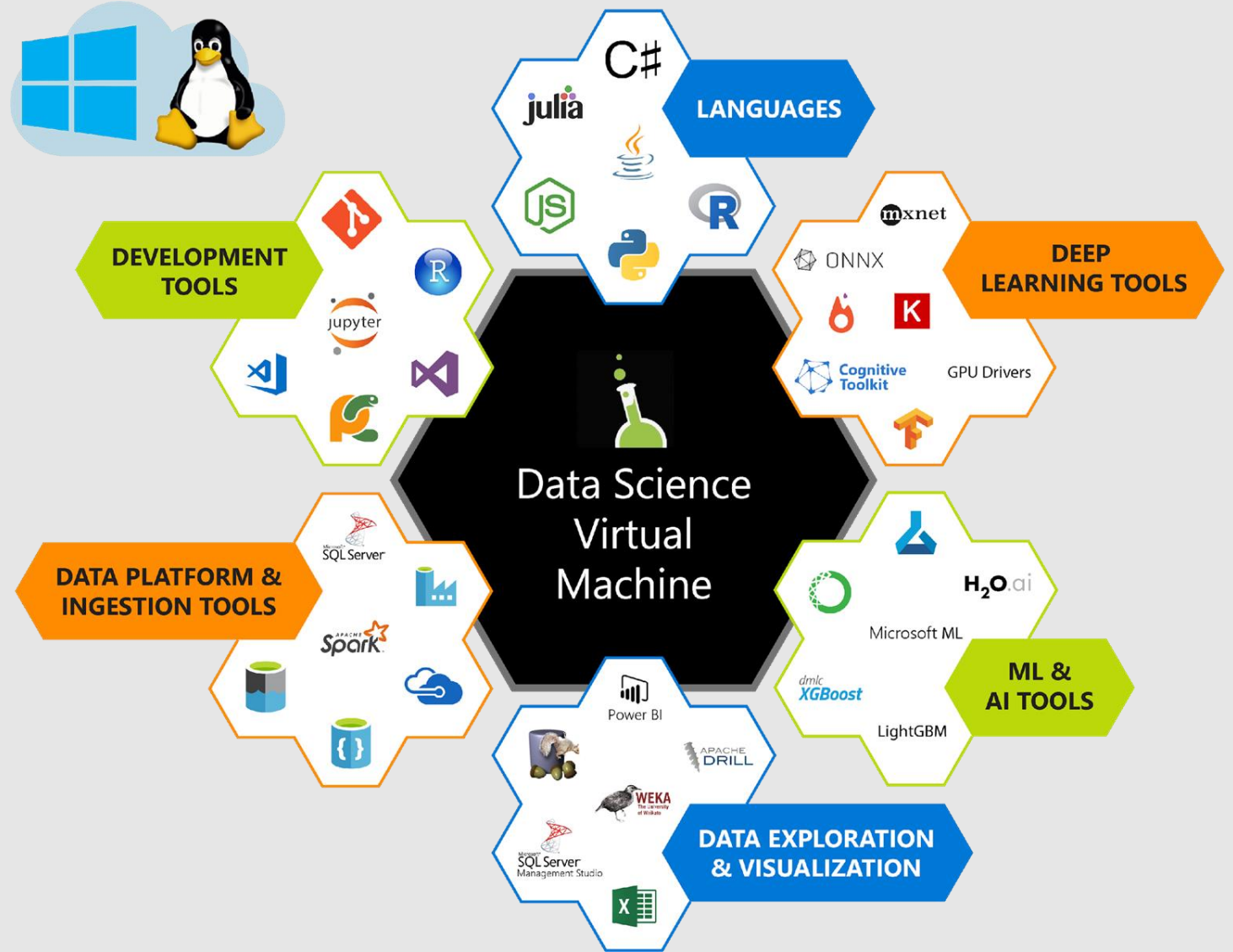
Building blocks for a Data Science Project



Data Science Virtual Machines (DSVM)

Pre-Configured environments in the cloud for Data Science & AI Modeling, Development & Deployment.

Samples to get started



Training Infrastructure



Dependencies and Containers

Leverage system-managed AML compute or bring your own compute



Distribute data

Manage and share resources across a workspace



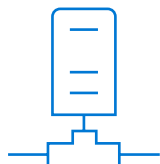
Schedule jobs

Train at cloud scale using a framework of choice



Scale resources

Autoscale resources to only pay while running a job



Provision VM clusters

Use the latest NDv2 series VMs with the NVIDIA V100 GPUs



Powerful Infrastructure

Accelerate deep learning



CPUs

General purpose
machine learning

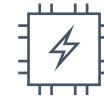
D, F, L, M, H Series



GPUs

Deep learning

N Series



FPGAs

Specialized hardware
accelerated deep learning

Project Brainwave

Optimized for flexibility

Optimized for performance



FPGA NEW UPDATES:

Support for image classification and recognition scenarios
ResNet 50, ResNet 152, VGG-16, SSD-VGG, DenseNet-121



DevOps for Machine Learning



DevOps loop for data science

Prepare



Prepare Data

Experiment



Build model
(your favorite IDE)



Train &
Test Model



Register and
Manage Model

Deploy



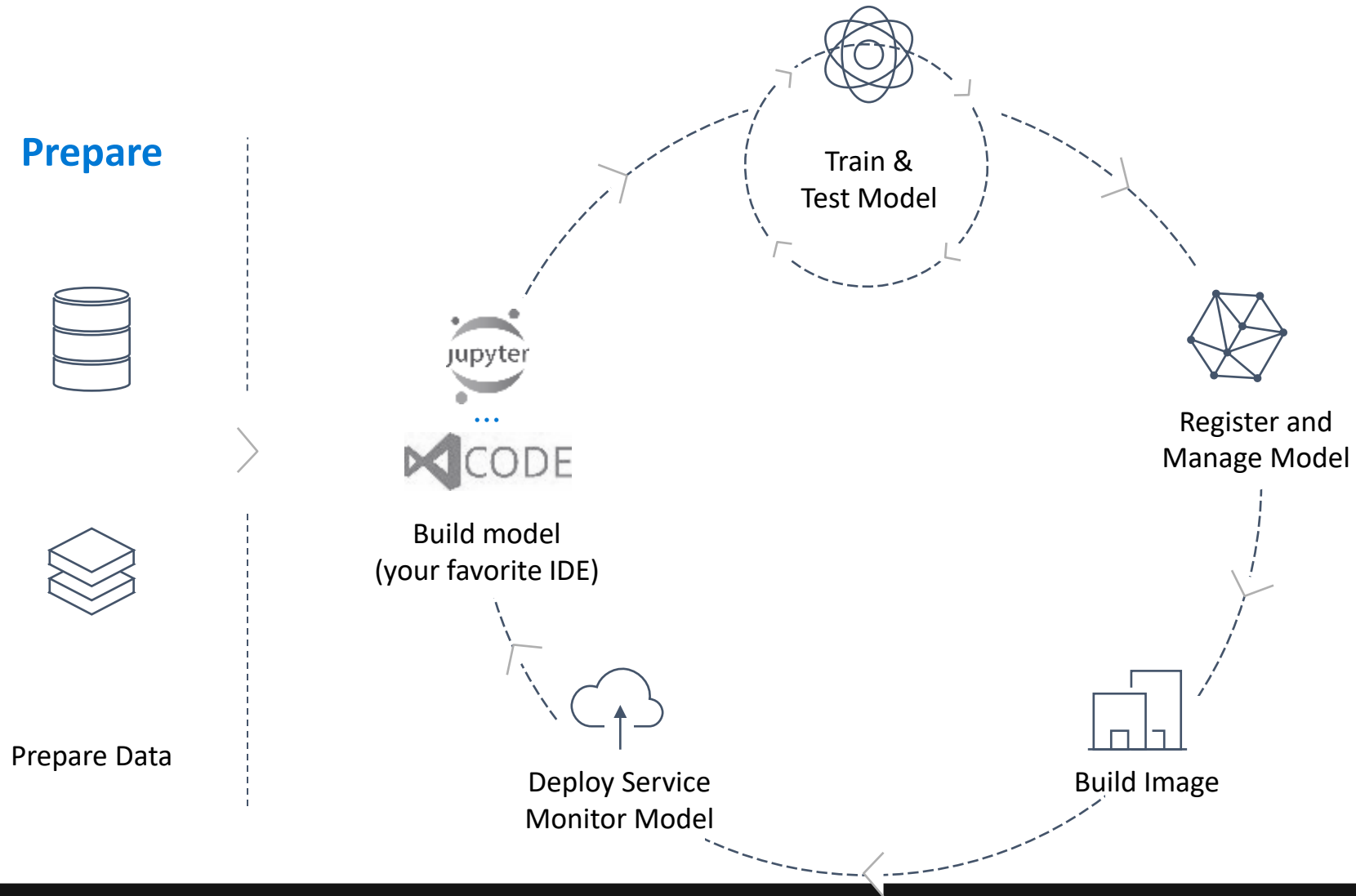
Build Image



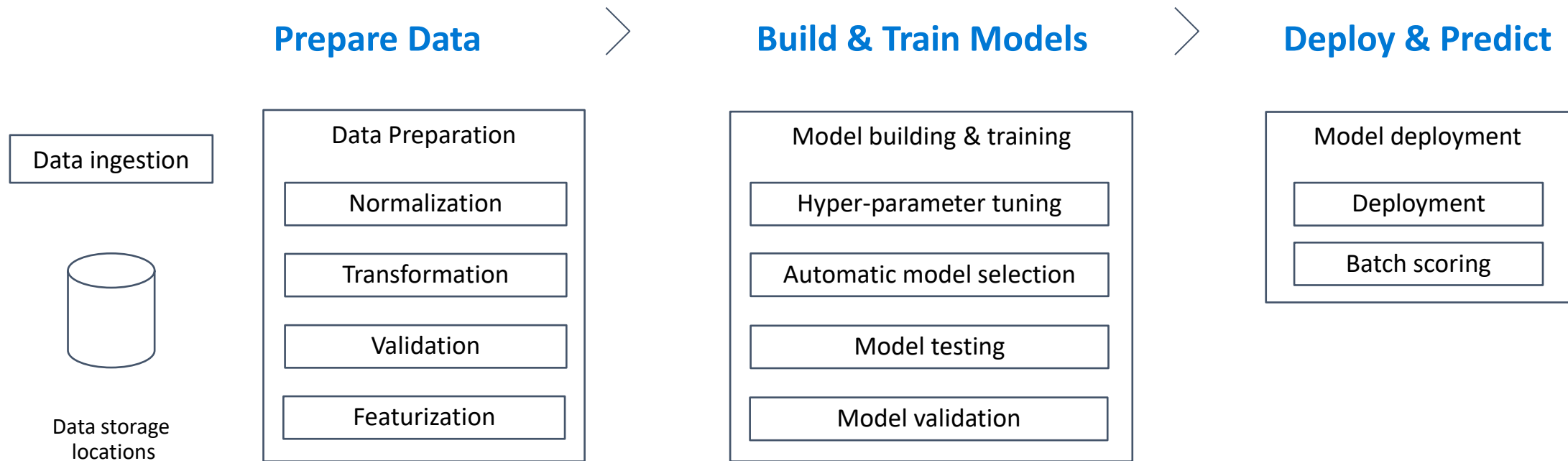
Deploy Service
Monitor Model



DevOps loop for data science



Azure Machine Learning Pipelines



Popular Frameworks

Use your favorite machine learning frameworks



TensorFlow



PyTorch



Scikit-Learn



MXNet



Chainer



Keras



without getting locked into one framework



ONNX

Community project created by Facebook and Microsoft
Use the best tool for the job. Train in one framework and transfer to another for inference

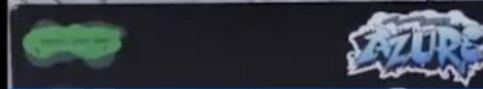




MLOps 101

Episode 0: 전체 주제 소개

한석진
마이크로소프트



클릭 시 이동

Korea Azure User Group 페이지의 그룹

Korea Azure User Group

공개 그룹 · 멤버 4.8천명

정보 토론 멘토십 추천 주제 이벤트 미디어 파일 사람



내용을 입력하세요...



라이브 방송



사진/동영상



설문

전체 공개 2
그룹의 주요



Korea Azure User Group

가입함 ▼



김영욱님이 링크를 공유했습니다.

관리자 · 3월 5일 오후 2:57 ·

Microsoft Azure의 다섯번째 리존이 중국에 생긴다고 합니다.
Microsoft는 2012년 파트너 21ViaNet을 통해 중국에서 Azure를 제공하기 시작했는데 Microsoft 관계자는 회사가 2022년에 Azure 가용성 영역, Azure Arc 다중 클라우드 관리 및 데이터 거버넌스 솔루션인 Azure Purview를 포함하여 중국에서 다수의 Azure 서비스를 제공할 계획이라고 합니다.



ZDNET.COM

Microsoft adds its fifth Azure cloud region in China | ZDNet

정보

Azure 클라우드 플랫폼
론하고 학습하는 사용자
핸즈온랩을 열고 있습니다

공개

누구나 그룹 멤버

검색 가능

누구나 이 그룹을

대한민국

일반

이 그룹의 주제 ⓘ

#정보공유

관리자가 고정함 · 게시

#질문과답변

관리자가 고정함 · 게시

감사합니다
Thank you~!

