

Microsoft Build





파이썬 & 리액트로 빌드하라

Build with Python & React

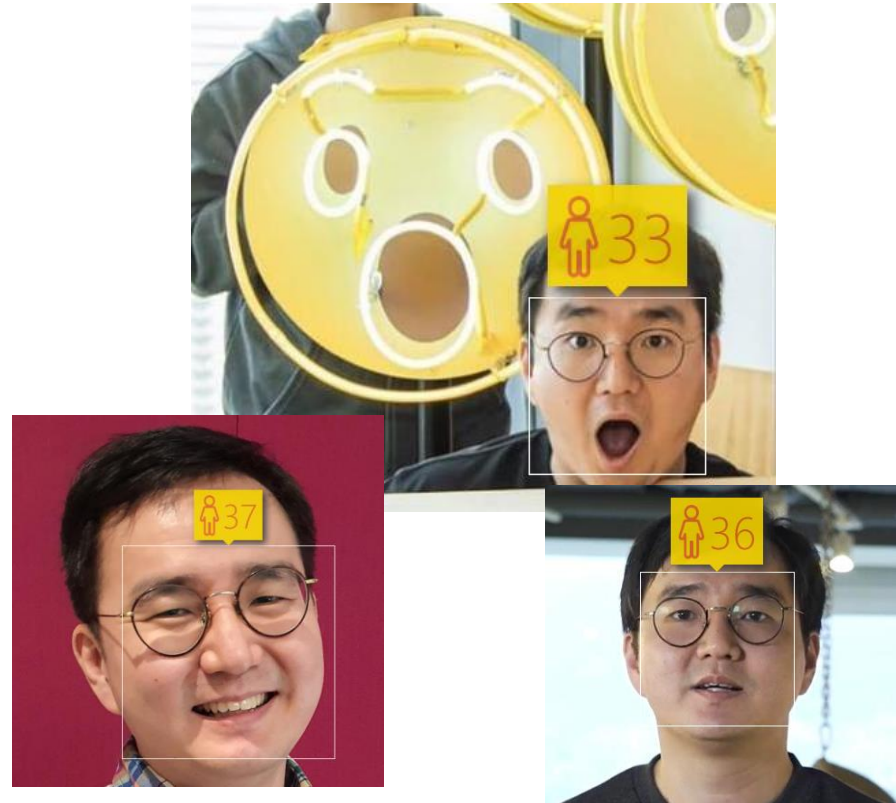
최영락 | Developer Product Marketing Manager, Microsoft

이진석 | Ask Django 운영자, Microsoft Azure MVP

최영락

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Marketing Manager at
Microsoft

  @iannychoi



이진석

Ask Django 운영자
Microsoft Azure MVP

fb.com/allieuslee

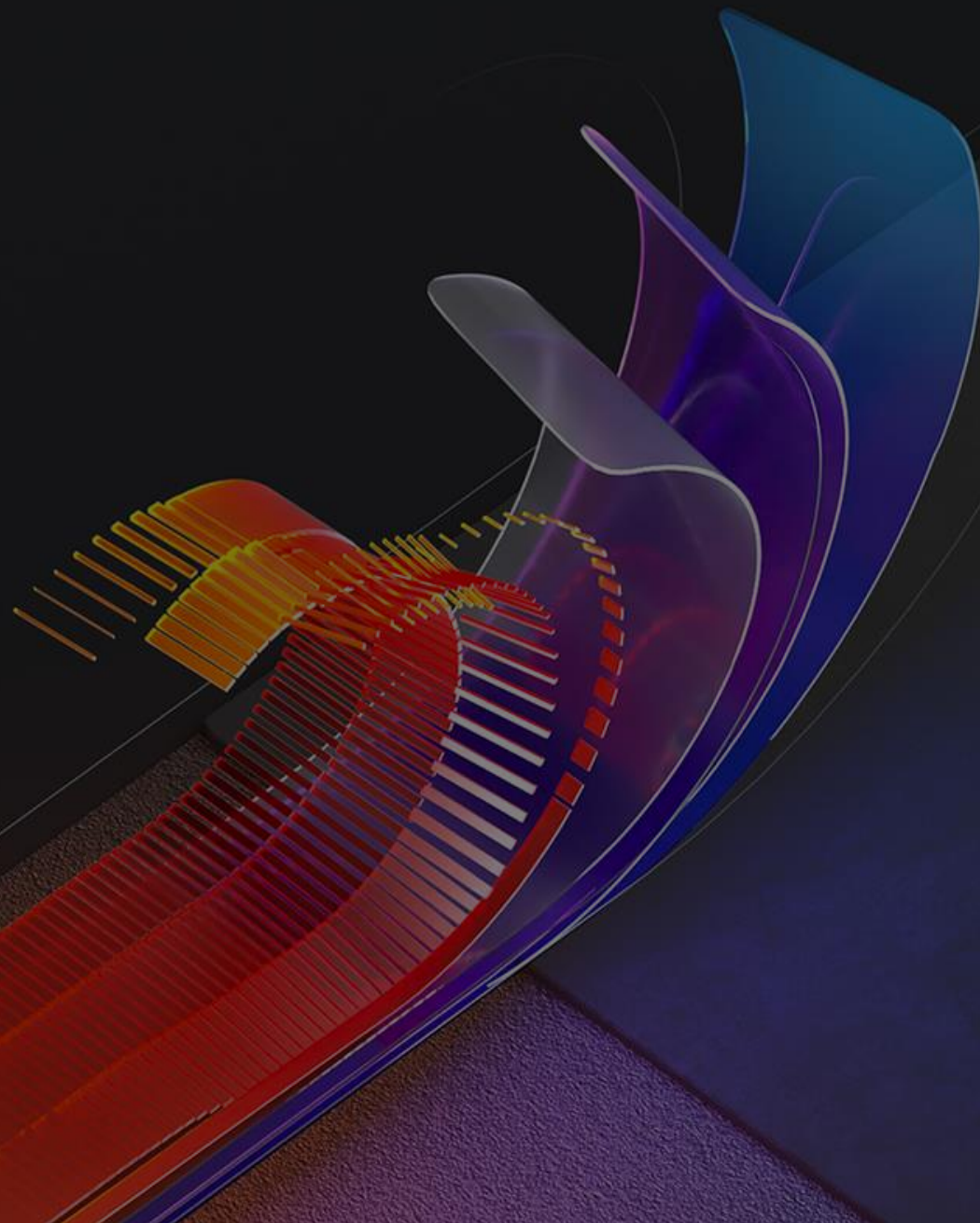


Agenda

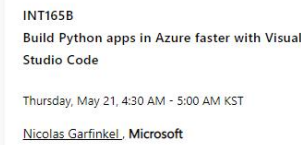
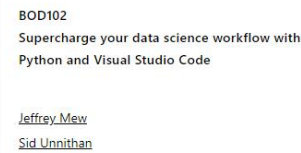
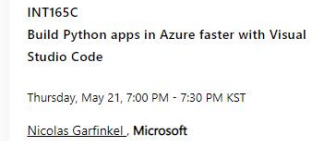
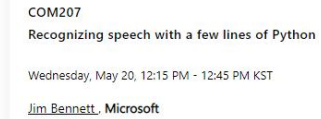
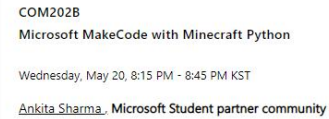
-
- Build 2020에서 나왔던 Python & React
 - Visual Studio Code 기반 Python 개발 환경 소개
 1. Windows에 직접 설치한 Python 개발 환경
 2. WSL2를 기반으로 한 Visual Studio Code 환경
 3. Codespaces 개발 환경 소개
 - 목표: 머신 러닝 모델을 Azure Function으로!
 1. 왜 Azure Function을 선택하였는가
 2. Python과 Azure Function
 3. 빠르게 프론트엔드를 구현 가능한 React 기술
 - 데모: Azure Function으로 샘플 앱을 웹 서비스로 + React 연동
 - 마무리



Build 2020에서 나온 Python & React 이야기



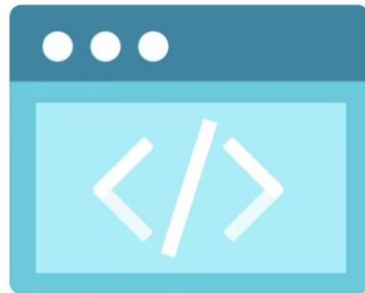
A word cloud featuring various programming languages, frameworks, and technology companies. The words are arranged in a circular pattern, with 'Python' and 'Visual Studio' being the largest. Other prominent words include 'Code', 'Build', 'MakeCode', 'Hello', 'World', 'Azure', 'Microsoft', 'Minecraft', 'faster', 'Hello', 'World', 'Azure', 'Microsoft', 'Minecraft', 'faster', 'Hello', 'World', 'Azure', 'Microsoft', 'Minecraft', 'faster'. The colors are diverse, including blue, green, red, purple, and brown.



React at Build 2020!



Azure Static Web Apps



8 sessions Relevance On demand sessions



BDL164
How PLEX is taking advantage of **React** Native
Thursday, May 21, 6:15 AM - 6:30 AM KST
[Michael Breckle](#)
[Paul Gusmorino](#), Microsoft
[Harini Kannan](#), Microsoft



SK119
React Native: Build cross platform apps that target Windows, Mac, and more!
[Steven Moyes](#), Microsoft
[Kiki Saintonge](#), Microsoft



SK131
Fluent Design System - Building apps that feel natural on every device
[Paul Gildea](#)
[Benedikt Lehnert](#)
[Chigusa Sansen](#), Microsoft Corporation

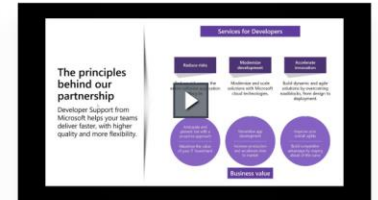


BDL103
Azure & M365 Recap with Mary Jo Foley & Paul Thurrott
Wednesday, May 20, 3:45 AM - 4:00 AM KST
[Mary Jo Foley](#), ZDNet
[Paul Thurrott](#), Thurrott.com

Meet the Experts



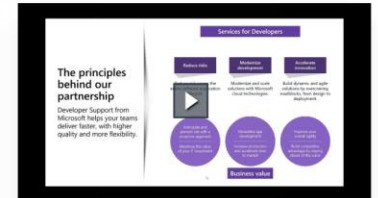
COM44
Expert Q&A: M365 - Apps with **React** Native
Wednesday, May 20, 5:15 AM - 5:45 AM KST
[Andrew Coates](#), Microsoft
[Steven Moyes](#), Microsoft
[Kiki Saintonge](#), Microsoft



COM150
Community Discussion | Developer Support from Microsoft
Wednesday, May 20, 5:00 AM - 6:00 AM KST
[David Armijo](#)
[Joseph "MSJoe" Flanigen](#), Microsoft
[Arthur Garcia](#), ...



BDL177
Australia highlights Horizon & Power Platform keynotes
Thursday, May 21, 12:45 PM - 1:00 PM KST
[Rick Claus](#), Microsoft
[Sonia Cuff](#), Microsoft
[Aaron Powell](#), Microsoft



COM151
Community Discussion | Developer Support from Microsoft
Thursday, May 21, 12:00 AM - 1:00 AM KST
[Joseph "MSJoe" Flanigen](#), Microsoft
[Kenneth Rhodes](#)
[Ilya Zilbersteine](#), Microsoft

Visual Studio Code 기반 Python 개발 환경 소개

microsoft / vscode

Used by 542 Watch 2.9k Star 98.6k Fork 15.5k

<> Code Issues 5,000+ Pull requests 216 Actions Projects 3 Wiki Security Insights

Visual Studio Code <https://code.visualstudio.com>

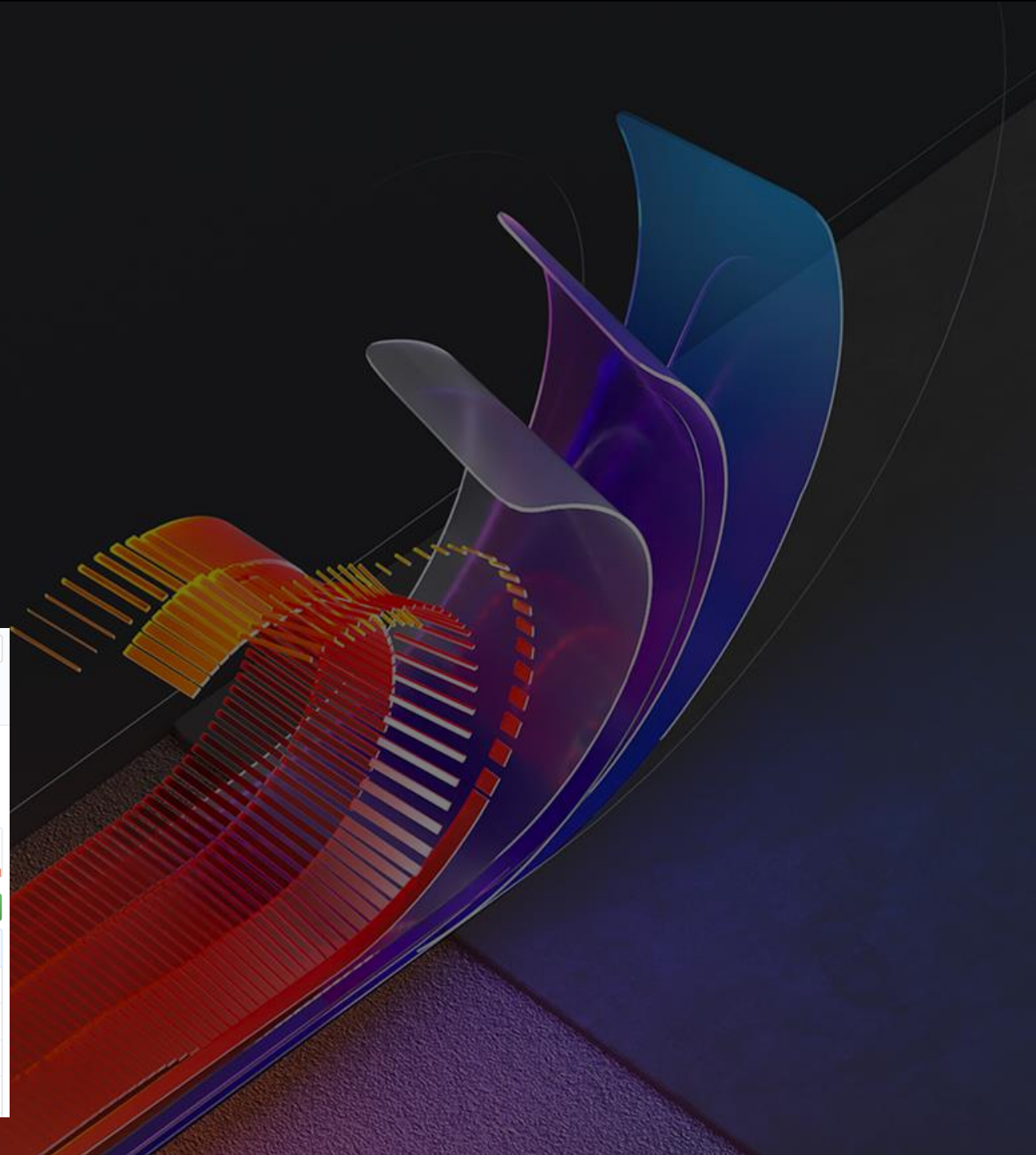
editor electron visual-studio-code typescript microsoft

67,518 commits 407 branches 0 packages 151 releases 1,173 contributors MIT

Branch: master New pull request Create new file Upload files Find file Code

sandy081 Comment out failing job Latest commit 129cc5a 23 minutes ago

.github	Bump actions.	19 hours ago
.vscode	Update to latest TS 4.0 for building VS Code	9 hours ago
build	Comment out failing job	23 minutes ago
extensions	enable/disable deprecated diagnostics in core instead of requiring ea...	9 hours ago



어떤 Python 개발 환경을 원하십니까?

• OS에 직접 설치

- 운영체제 (Windows, macOS) 에 Python 개발 환경을 직접 설치 및 구성

Whenever it's time to eat



Every goddamn time.

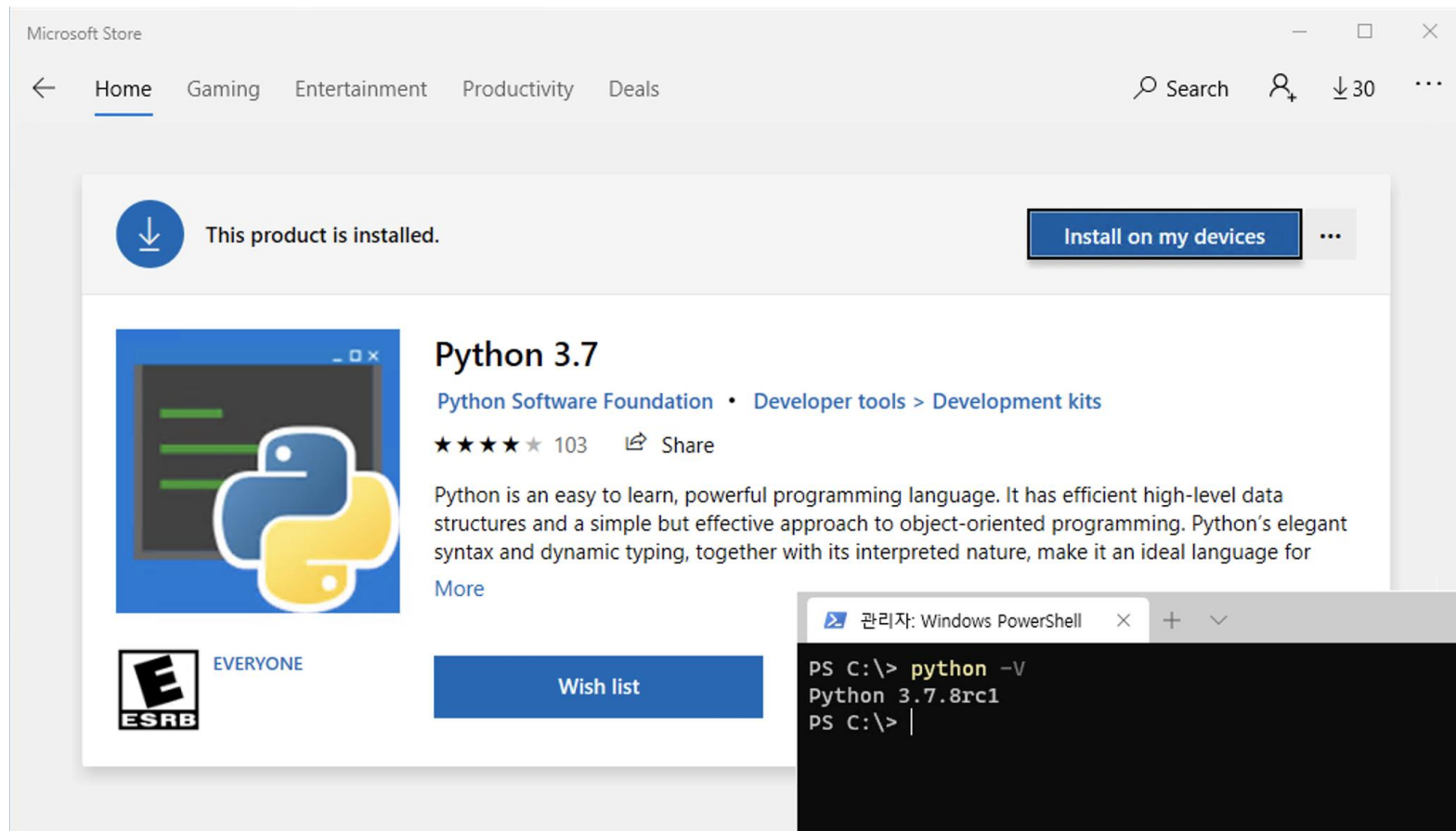
• WSL2

- Windows 10에서는 Windows Subsystem for Linux 기능을 통해 리눅스 기반 개발 환경을 지원
- Visual Studio Code 등 IDE와 함께 최적의 Python 개발 환경 구성 가능

• Codespaces 활용

- Git 코드 저장소당 원하는 Codespaces 공간을 생성하여 작업 가능
- 작업 환경이 바뀌더라도 동일한 개발 환경 및 IDE를 사용한 개발 경험 가능

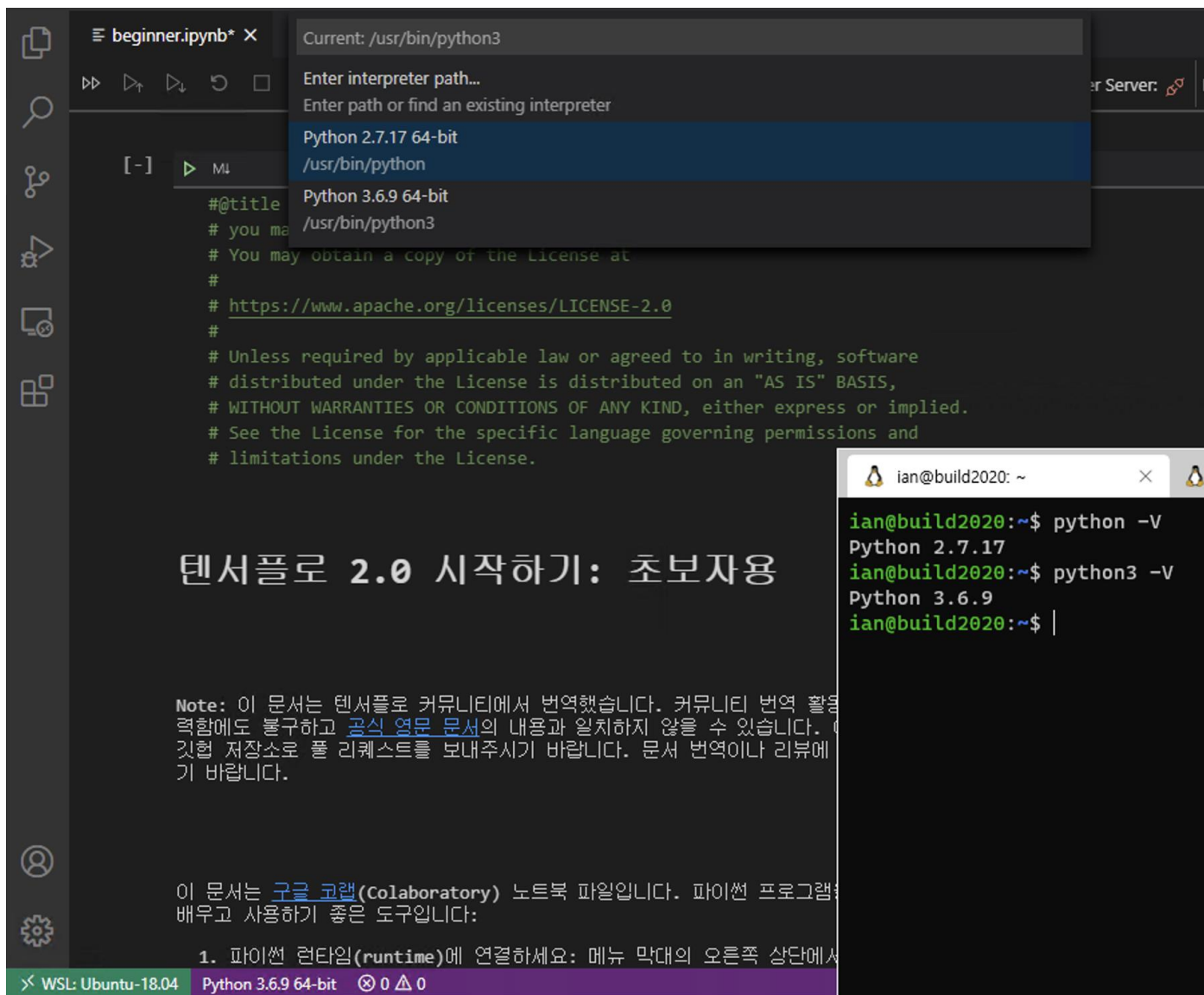
OS에 직접 설치한 Python 환경



The screenshot shows the Microsoft Store interface. At the top, there are navigation tabs: Home, Gaming, Entertainment, Productivity, and Deals. A search bar and a download count of 30 are visible. Below the navigation bar, a message states "This product is installed." with a download icon and a button labeled "Install on my devices". The main product listing is for "Python 3.7" by the "Python Software Foundation", categorized under "Developer tools > Development kits". It has a 5-star rating from 103 reviews and a "Share" button. The description states: "Python is an easy to learn, powerful programming language. It has efficient high-level data structures and a simple but effective approach to object-oriented programming. Python's elegant syntax and dynamic typing, together with its interpreted nature, make it an ideal language for". Below the description is a "Wish list" button and an ESRB rating of "EVERYONE". In the bottom right corner, a Windows PowerShell terminal window is open, showing the command `python -V` and the output `Python 3.7.8rc1`.

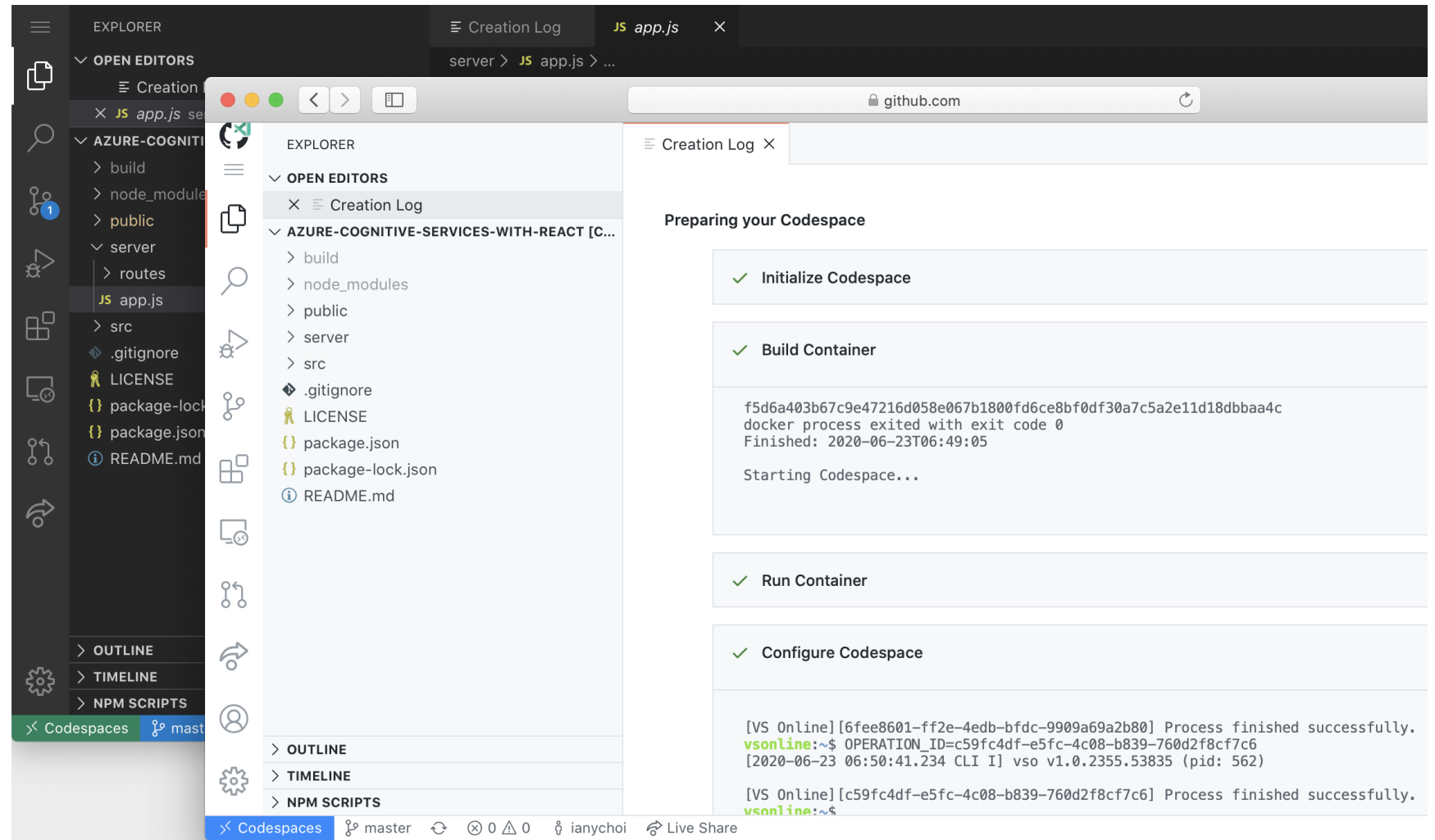
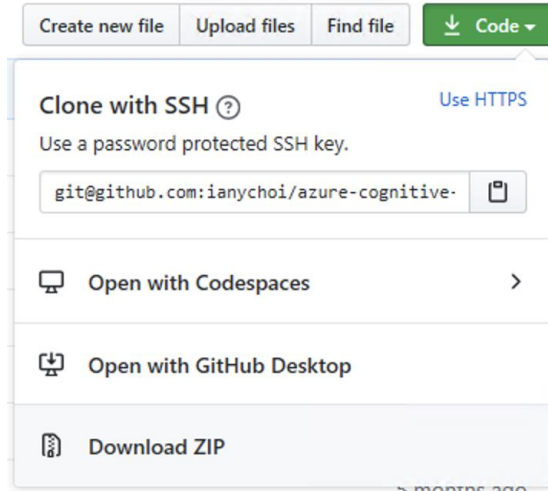
```
[~ sw_vers
ProductName:      Mac OS X
ProductVersion:  10.15.5
BuildVersion:    19F101
[~ python -V
Python 2.7.16
[~ which python3
/usr/bin/python3
[~ python3 -V
Python 3.7.3
~
```

WSL2*와 함께 하는 Python 개발 환경



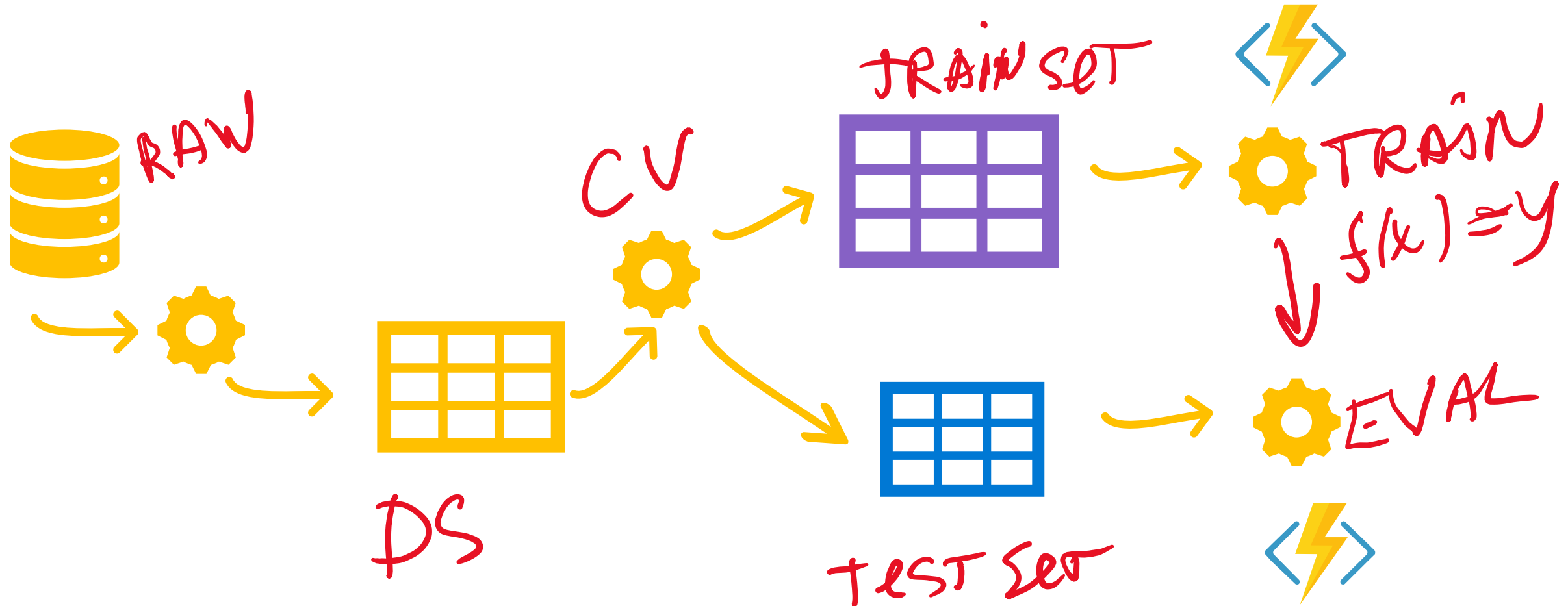
*WSL2: Windows Subsystem
for Linux version 2

Codespaces 활용



Visual Studio Codespaces: <https://visualstudio.microsoft.com/ko/services/visual-studio-codespaces/>
GitHub Codespaces: <https://github.com/features/codespaces/>

목표: 머신 러닝 모델을 Azure Function으로!



Python을 잘 지원하는 Azure Functions!



Azure Functions Language Support by Runtime Version

Language	1.x	2.x	3.x
C#	GA (.NET Framework 4.7)	GA (.NET Core 2.2)	GA (.NET Core 3.1)
JavaScript	GA (Node 6)	GA (Node 8 & 10)	GA (Node 10 & 12)
F#	GA (.NET Framework 4.7)	GA (.NET Core 2.2)	GA (.NET Core 3.1)
Java	N/A	GA (Java 8)	GA (Java 8)
PowerShell	N/A	GA (PowerShell Core 6)	GA (PowerShell Core 6)
Python	N/A	GA (Python 3.6 & 3.7)	GA (Python 3.6, 3.7, & 3.8)
TypeScript	N/A	GA ¹	GA ¹

¹Supported through transpiling to JavaScript.

Demo

Azure Function으로 샘플 앱을 웹 서비스로
+ React 연동

그 외 프론트엔드 개발자에게 관심있을만한 Build 세션

What's New in TypeScript

Speakers Daniel Rosenwasser

Session code
BOD101

Session type
[Pre-recorded Session](#)

Level
Intermediate (200)

Related Links
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[Microsoft Docs](#)
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What's New in TypeScript?

Daniel Rosenwasser
Program Manager

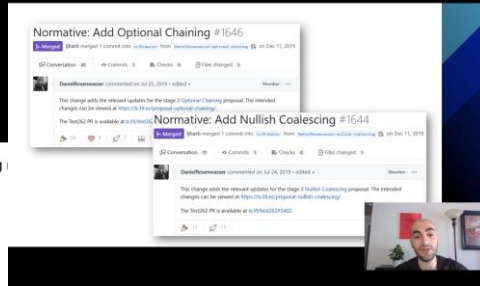
```
1 interface Session {  
2   user?: User;  
3 }  
4  
5 interface User {  
6   name: string;  
7 }  
8  
9 function getDisplay (property) Session.user?: User | undefined  
10 return session.user && session.user.name.toUpperCase();  
11 }
```



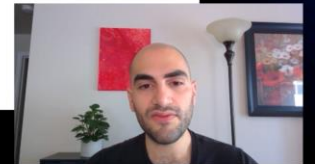
```
9 function getDisplayName(session: Session) {  
10   return session.user?.name.toUpperCase() || "[NO USER LOGGED IN]";  
11 }
```



```
8  
9 function getDisplayName(session: Session) {  
10   return session.user?.name.toUpperCase() ?? "[NO USER LOGGED IN]";  
11 }
```



- 🔗 Open source *and* open development
- 🏆 Closely track ECMAScript standard
- 📋 Innovate in type system
- 🔨 Best of breed tooling
- ☁️ Continuously lower barrier to entry
- 👥 Community, community, community



Microsoft welcomes every developers!



Why "Hello, world!"?

hello_world.py helloworld.cs JS helloworld.js X

```
hello_javascript > JS helloworld.js > ...
1 | var msg = "Hello, World!"
2 | var is_build = true
3 |
4 | if(is_build)
5 | {
6 |   msg = "Hello, Build!"
7 | }
```

Language comparison

Language	Primary usage	Typing	Syntax	Key benefits
Python	<ul style="list-style-type: none">Data scienceWeb backendDevOps	Dynamic (duck typing)	Whitespace matters	<ul style="list-style-type: none">ReadabilityLibrariesCommunity
C#	<ul style="list-style-type: none">Application developmentGeneral purpose	Static	Strict rules & structure	<ul style="list-style-type: none">Mature and stablePowerful debugging
JavaScript	<ul style="list-style-type: none">Web frontend and backend	Dynamic	Quirky	<ul style="list-style-type: none">SpeedVersatile and interoperable

전문가가 추천하는 가이드






Microsoft Docs

기술 소개, 튜토리얼,
코드 샘플 등
다양한 기능을 살펴보세요.

Visit: aka.ms/docs.kr

Microsoft Docs

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 Windows	 Azure	 Visual Studio	Office	Microsoft 365	
ASP.NET	SQL	Enterprise Mobility + Security	 Microsoft Surface	Dynamics 365	
Azure DevOps	System Center	 PowerShell	Microsoft Graph	Microsoft Education	

Docs 디렉터리

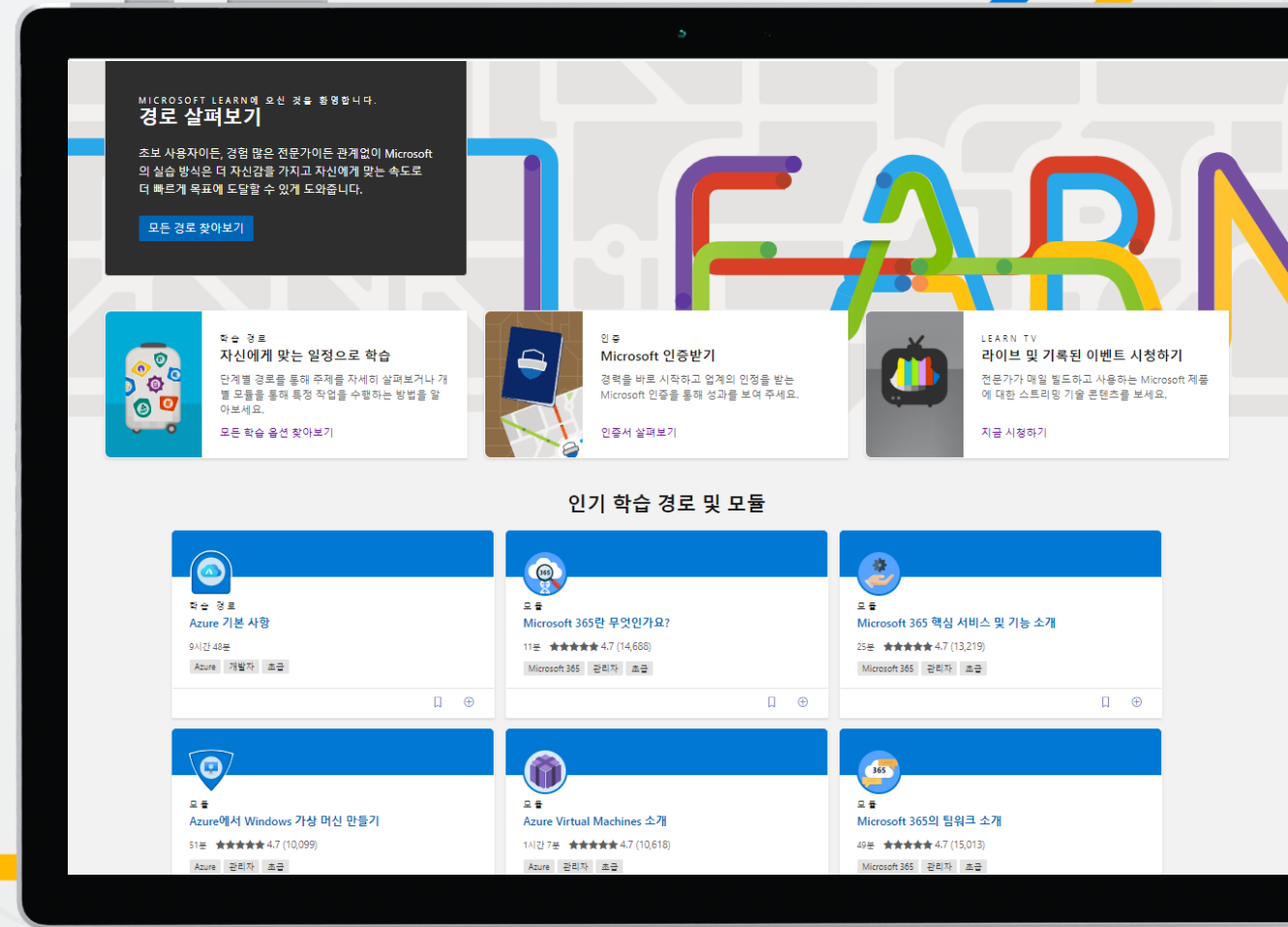
.NET	Microsoft 365 Business	NuGet
적용형 카드	Microsoft 365 Enterprise	Office
ASP.NET	Microsoft Advertising	Office 365
Azure	Microsoft Edge	OneDrive
Azure 아키텍처 센터	Microsoft Education	개방형 사암
Azure Bot Service	Microsoft Endpoint Configuration Manager	PlayReady
Azure DevOps	Microsoft Endpoint Configuration Manager	Power Apps
Azure IoT Central	Microsoft Endpoint Manager	Power Automate
Azure Sphere	Microsoft FastTrack	Power BI
Bing 지도	Microsoft Forms Pro	Power Platform
Biztalk Server	Microsoft Graph	파워 쿼리
C++	Microsoft HPC Pack 2016	PowerShell

언제 어디서나 배워보세요

Microsoft Learn

단계별 학습을 통해
다양한 기능을 알아보고
새로운 기술을 배워보세요.

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감사합니다!



최영락



이진석

