

1강 - 환경 설정 및 HELLO PYTHON

2017.05.08

DATA SCIENCE SCHOOL 5기

변영효



1. 파이썬 설치 & 개발 환경 설정
 2. 파이썬 & JUPYTER 맛보기
 3. 파이썬 기본 데이터 타입 알아보기
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학습목표

WHY PYTHON?

- ▶ '코드'를 읽고/쓰기 간결함
- ▶ 다양한 '패키지' 제공
- ▶ 다양한 '프로젝트'에 사용 중

WINDOWS 환경

- ▶ 다운로드 - <https://www.python.org/downloads/>
- ▶ 기본 값으로 설치 진행

Downloads	Documentation	Community	Success Stories	News
All releases				
Source code				
Windows				
Mac OS X				
Other Platforms				
License				
Alternative Implementations				

Download for Windows

Python 3.6.1

Python 2.7.13

2.7.13 선택

Note that Python 3.5+ cannot be used on Windows XP or earlier.

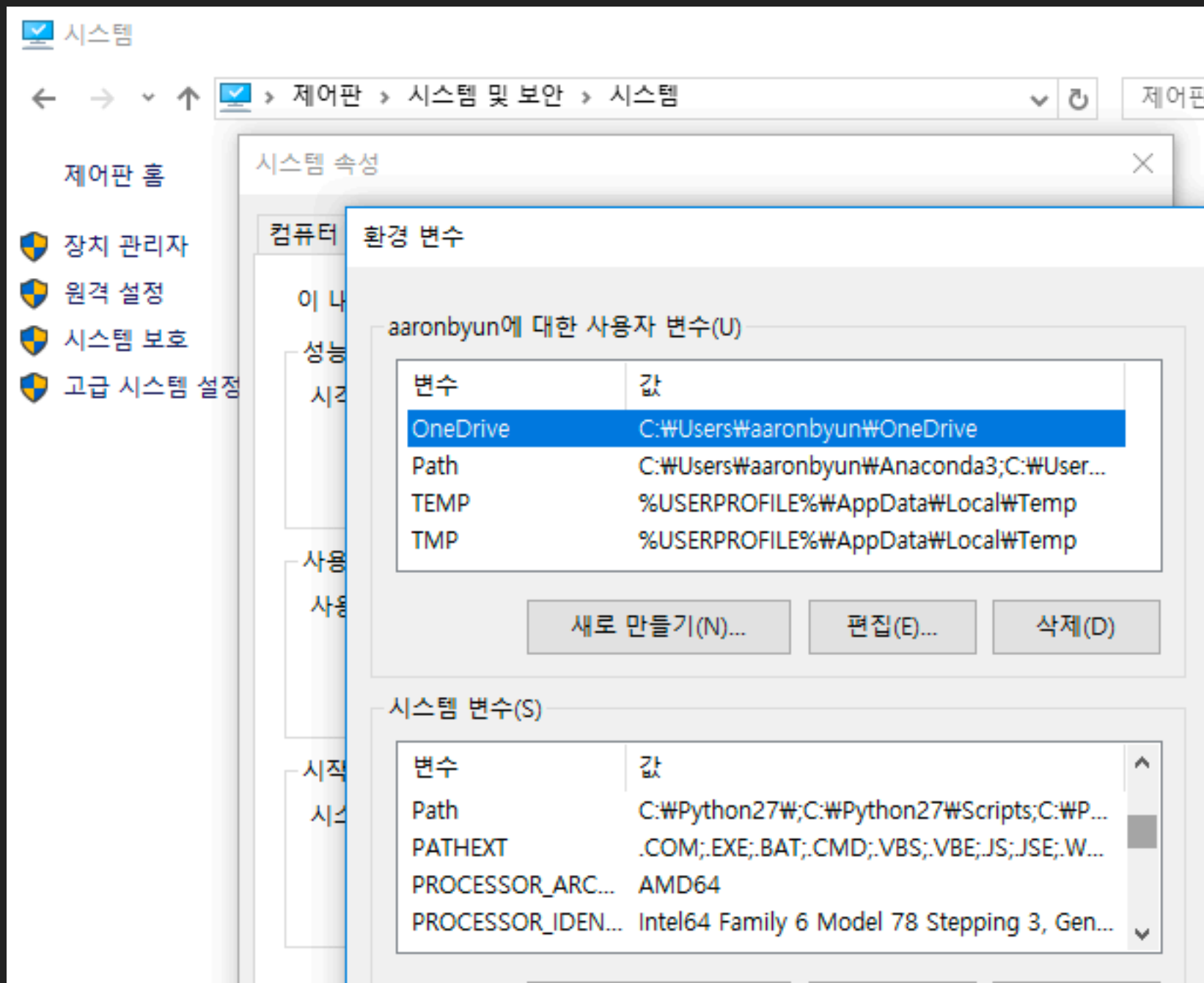
Not the OS you are looking for? Python can be used on many operating systems and environments.

[View the full list of downloads.](#)

Windows 정품

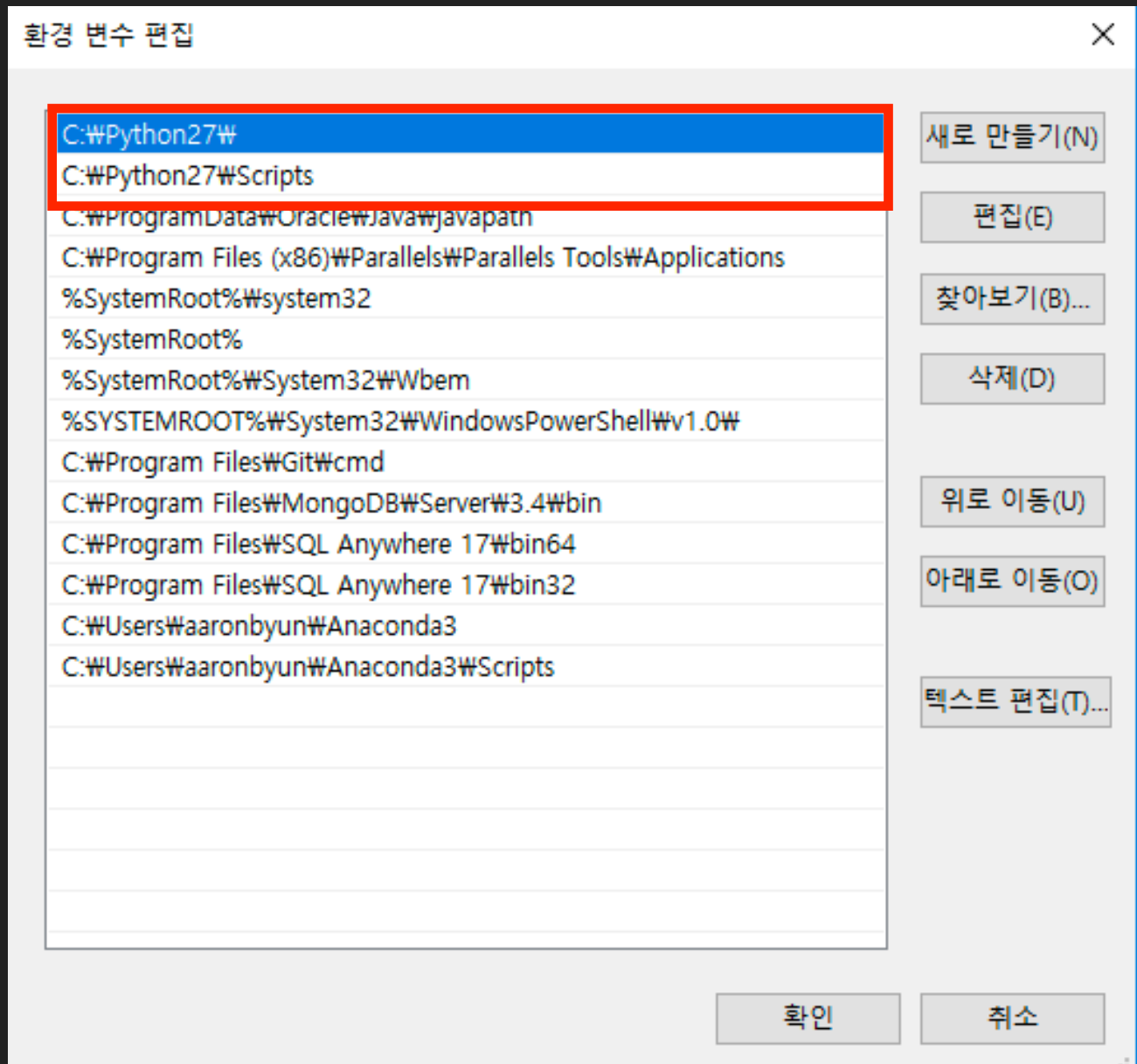
WINDOWS 환경

- ▶ 환경 변수 설정 (제어판 -> 시스템 및 보안 -> 시스템)
- ▶ 고급 시스템 설정 -> 환경변수 -> 시스템변수



WINDOWS 환경

- ▶ Path 선택 후 편집 버튼 클릭
- ▶ 새로 만들기 선택 -> C:\Python27\ 추가
- ▶ 새로 만들기 선택 -> C:\Python27\Scripts 추가



WINDOWS 환경

- ▶ 설치 확인
- ▶ `python --version`
- ▶ `pip --version`

C:\ 명령 프롬프트

```
Microsoft Windows [Version 10.0.14393]  
(c) 2016 Microsoft Corporation. All rights reserved.
```

```
C:\Users\Haaronbyun>python --version  
Python 2.7.13
```

```
C:\Users\Haaronbyun>pip --version  
pip 9.0.1 from c:\python27\lib\site-packages (python 2.7)
```

OSX 환경

- ▶ Terminal app 실행
- ▶ `/usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"`

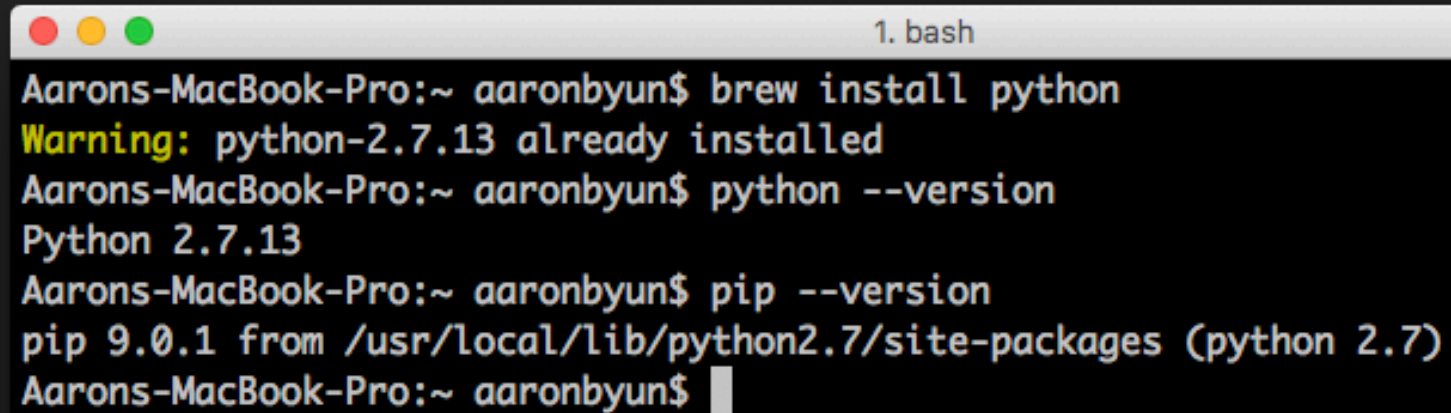
```
1. bash
Aarons-MacBook-Pro:~ aaronbyun$ /usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"
=> This script will install:
/usr/local/bin/brew
/usr/local/share/doc/homebrew
/usr/local/share/man/man1/brew.1
/usr/local/share/zsh/site-functions/_brew
/usr/local/etc/bash_completion.d/brew
/usr/local/Homebrew
=> The following existing directories will be made group writable:
/usr/local/share/man/man8
=> The following existing directories will have their owner set to aaronbyun:
/usr/local/share/man/man8

Press RETURN to continue or any other key to abort
=> /usr/bin/sudo /bin/chmod u+rx /usr/local/share/man/man8
Password:
=> /usr/bin/sudo /bin/chmod g+rx /usr/local/share/man/man8
=> /usr/bin/sudo /usr/sbin/chown aaronbyun /usr/local/share/man/man8
=> /usr/bin/sudo /bin/mkdir -p /Library/Caches/Homebrew
=> /usr/bin/sudo /bin/chmod g+rx /Library/Caches/Homebrew
=> /usr/bin/sudo /usr/sbin/chown aaronbyun /Library/Caches/Homebrew
=> Downloading and installing Homebrew...
remote: Counting objects: 89, done.
remote: Compressing objects: 100% (53/53), done.
```

OSX 소프트웨어 관리 툴

OSX 환경

- ▶ brew install python
- ▶ 설치확인
- ▶ python --version
- ▶ pip --version



```
Aarons-MacBook-Pro:~ aaronbyun$ brew install python
Warning: python-2.7.13 already installed
Aarons-MacBook-Pro:~ aaronbyun$ python --version
Python 2.7.13
Aarons-MacBook-Pro:~ aaronbyun$ pip --version
pip 9.0.1 from /usr/local/lib/python2.7/site-packages (python 2.7)
Aarons-MacBook-Pro:~ aaronbyun$
```

The image shows a terminal window titled "1. bash" with a white title bar and red, yellow, and green window control buttons. The terminal text shows the user 'aaronbyun' running 'brew install python', which results in a warning that 'python-2.7.13' is already installed. Subsequent commands 'python --version' and 'pip --version' return 'Python 2.7.13' and 'pip 9.0.1 from /usr/local/lib/python2.7/site-packages (python 2.7)' respectively. The prompt returns to 'Aarons-MacBook-Pro:~ aaronbyun\$'.

다양한 PYTHON 개발 방법 확인

- ▶ Terminal / cmd
 - command line 기반
 - 명령행 모드
- ▶ .py 파일 작성 (<https://atom.io/> 에서 atom 다운로드)
 - 소스코드 작성 후 python filename.py로 실행
- ▶ Jupyter notebook
 - 웹브라우저 기반
 - 마크 다운 문서 작업 가능
 - 데이터 분석 보고서 및 결과 자료로 많이 활용

JUPYTER NOTEBOOK

▶ JUPYTER NOTEBOOK 사용방법



변수(데이터) 타입

변수 선언 및 할당

변수 출력

기본 연산자

MATH PACKAGE

연습문제

HELLO PYTHON