



# Execute python code in Spring


1. embed Python code directly in Java (JEP, JPY, JYTHON)
2. transpile(특정 언어 소스 코드 → 다른 언어로 변환) scikit-learn models to Java code (sklearn-porter, m2cgen)
3. redevelop scikit-learn models with H2O or Spark's MLib

## Considered Options

- using Spark in embedded mode (using just JAR dependencies)
- ~~setting up a Spark cluster~~

Approach	Pros	Cons
<b>embed</b>	models stay as they are	additional “glue” code and communication overhead, two code bases to maintain
<b>transpile</b>	speed (all code is in Java)	quality of converted models may vary, limited number of supported algorithms
<b>redevelop</b>	speed, stability, scaling, code for training the models can stay in Python	re-implementation of feature extraction code, limited number of supported algorithms, results may vary due to different implementations of algorithms

Moving from Python to Java to deploy your machine learning model to production  
We have developed a prototype of a system that recommends transformations in Informatica Mapping Designer. Now, we wanted to move to production. The prototype was completely developed in Python using scikit-learn library, a popular library for developing

 <https://towardsdatascience.com/moving-from-python-to-java-to-deploy-your-machine-learning-model-to-production-560ca7d9c870>



## 4. use Django

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## 그냥 Java 코드로 .py 파일을 실행시키면?

- ✓ Jython이나 Command line executor로 .py 파일을 실행시키는 것도 가능하지만
- ✓ Python 파일을 실행시킬 때 의존성 있는 라이브러리를 import 하는 시간이 오래 걸린다
- ✓ 이전 기수의 경우에는 import에만 3초 이상 필요한 경우도 있었음
- ✓ Django 서버를 실행시켜놓고 Spring에서 REST 호출을 하면 빠른 실행 가능!

1. Customer → Spring REST → Django REST
2. Django REST Result → Spring → Customer