



Summer School ML

III Python for ML

Prof. Dr.-Ing. Janis Keuper

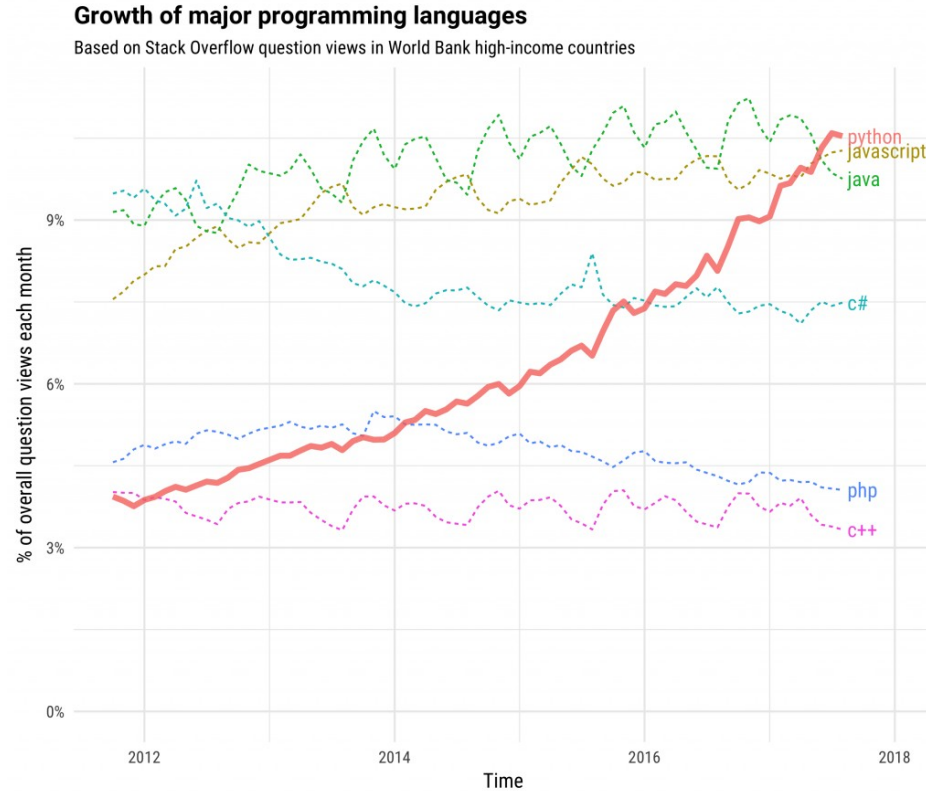


INSTITUTE FOR MACHINE
LEARNING AND ANALYTICS





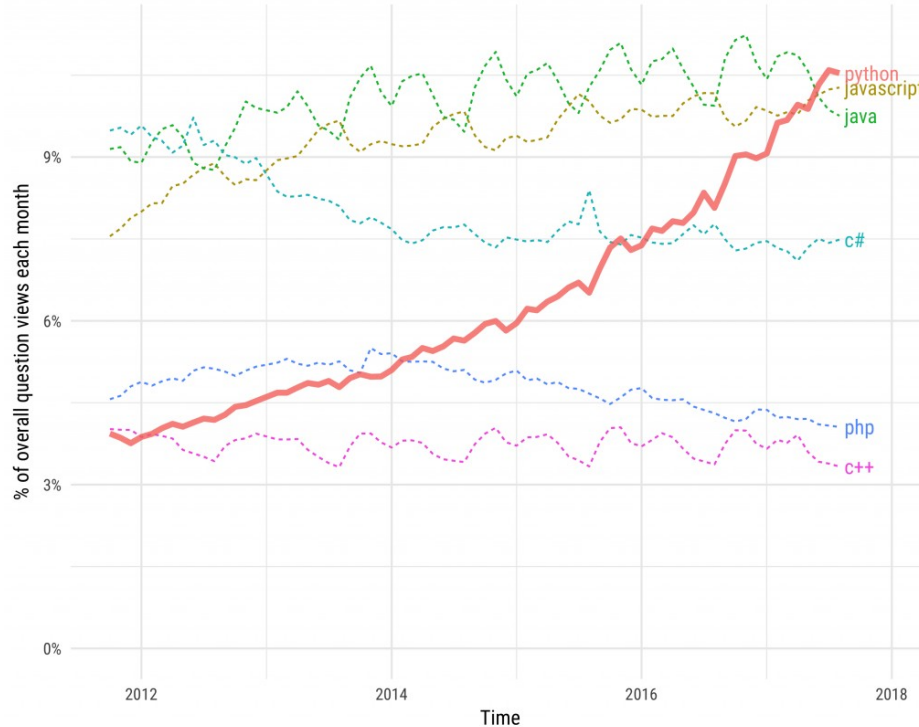
- We will use Python (more exactly tools with python interface) for this course
- Python is the most dominant language used in Data Science, Data Analytics and Machine Learning today
- Alternatives: R and Julia



[2]

Growth of major programming languages

Based on Stack Overflow question views in World Bank high-income countries



[2]

- Triggered by ML + Data Science
- Python pushes convergence of technologies:
 - HPC
 - Cloud
 - Big-Data

- Very low entry barrier (easy to learn)
- Quite universal in programming approaches
- Easy to interface existing high performance libs
- Huge Community
- **Libraries !!!**
- **Python as „glue code“ for rapid development and markup**





<https://www.anaconda.com/distribution/>

- Easy installation on Linux/Mac/Win
 - See read.me in Moodle
 - User space install (no admin needed)
- Conda Python package management
 - Simple install/update/sharing of software
- All open source!



NOTE:

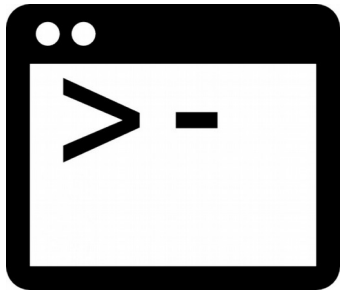
There are two versions of Python:

Python2 and Python3

Support for Python2 ended 31.12.19

→ get started with Python3!

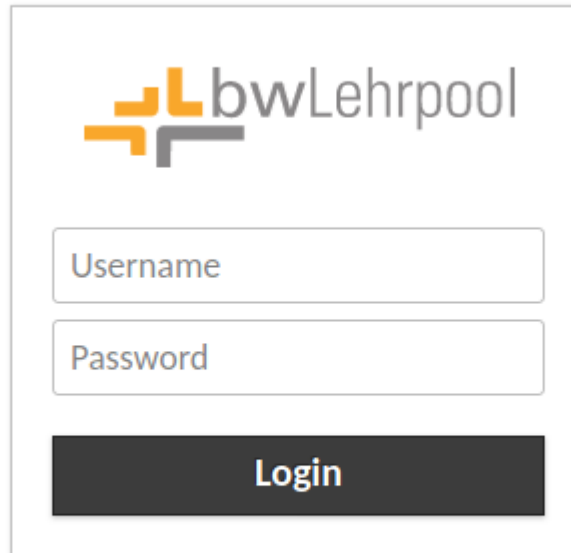




Interactive Python Introduction

→ Start lab session now!

Tools: bwLehrPool



The login form for bwLehrpool is displayed within a light gray border. At the top left is the bwLehrpool logo, which consists of an orange stylized 'L' and a gray stylized 'L' followed by the text 'bwLehrpool'. Below the logo are two input fields: the first is labeled 'Username' and the second is labeled 'Password'. At the bottom of the form is a dark gray button with the text 'Login' in white.

BWLEHRPOOL

<https://bwlehrpool-remote.hs-offenburg.de>