Workshop

# Python for Economics


## Saeed Saffari

Email: m.saeed1024@yahoo.com

GitHub: github.com/saeed-saffari

Faculty of Economics
University of Tehran


Summer 2021

Python for Economics

Saeed Saffari

Why Programming?

Why Programming?

Why Programming in Economics?

Programming Languages

Why Python?

Comparing

Python development

Popularity of Python

Trade-Offs

Workshop Content

WorkshopContent

How to Start?

How to Start?

Thank you

# Why Programming?

- Looking for Common language between Human and Machine
- Different Works, Different Languages
- Why Python?
  - Close to Human Language
  - Easily Connect to other Languages
  - General usage
    - Wide range of fields
    - Great Communication



Why Programming?
Why Programming?
Why Programming in Economics?
Programming Languages
Why Python?
Comparing
Python development
Popularity of Python
Trade-Offs
Workshop Content
WorkshopContent
How to Start?
How to Start?
Thank you

# Why Programming in Economics?

- Analysis of Economic Data
  - High volume of generated data
  - Impossibility of data management in software such as Excel
  - Read data from an online database
- Quantitative Methods
  - Influence of different mechanisms on an economic
  - The complexity of economic issues facing economists
  - Lack of analytical solutions to problems



Why Programming?
Why Programming?
Why Programming in Economics?
Programming Languages
Why Python?
Comparing
Python development
Popularity of Python
Trade-Offs
Workshop Content
WorkshopContent
How to Start?
How to Start?
Thank you

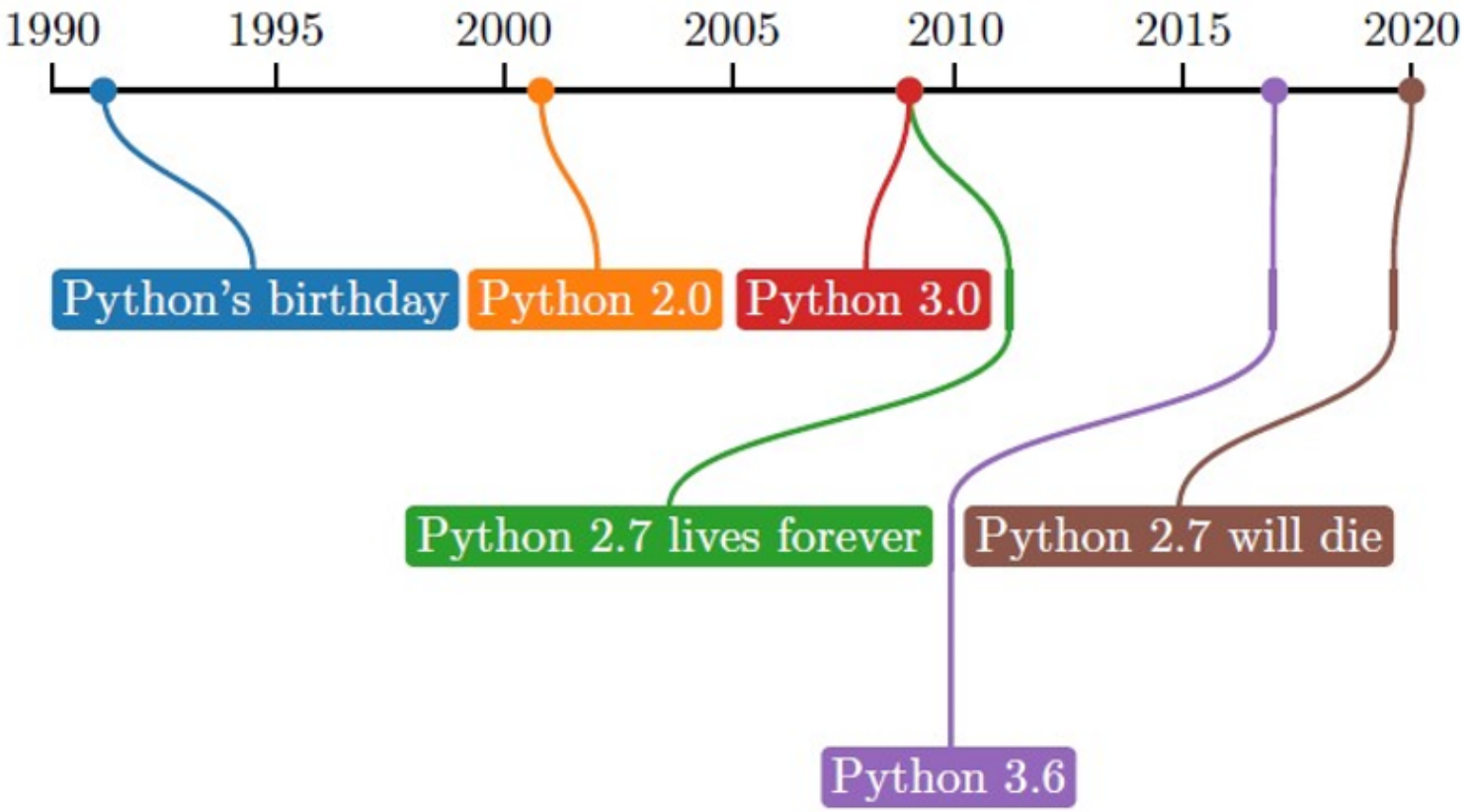
# Programming Languages

Why Programming?
Why Programming?
Why Programming in Economics?
Programming Languages
Why Python?
Comparing
Python development
Popularity of Python
Trade-Offs
Workshop Content
WorkshopContent
How to Start?
How to Start?
Thank you

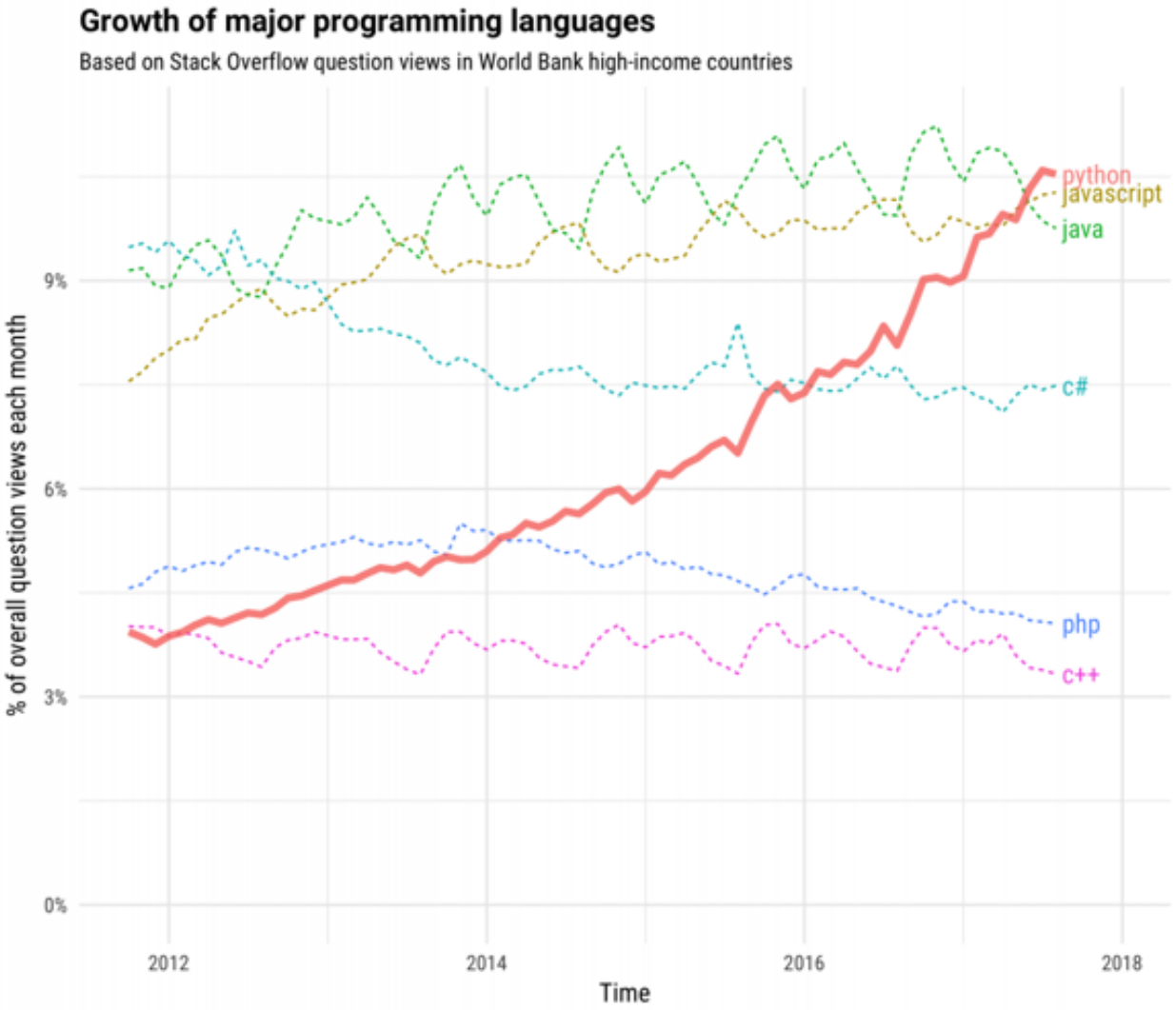
# Comparing the way Python works with common programming languages

- C/C++ and Fortran:
  - Time-consuming coding
- MATLAB:
  - Lack of proper economic packages
  - Lake of design, efficiency compared to Python
  - Not open source
- R
  - Useful in statistics with high variety of packages
- Stata
- Julia

# Overview of the Python development by versions and dates:



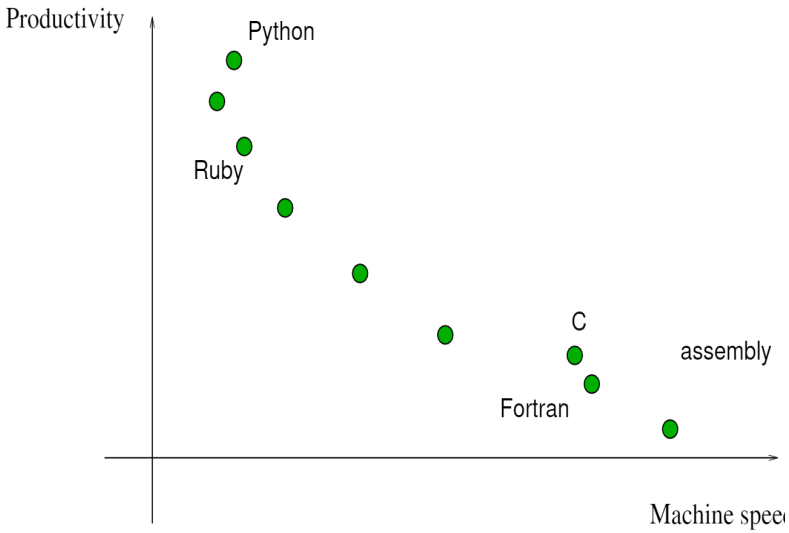
# Python has become extremely popular

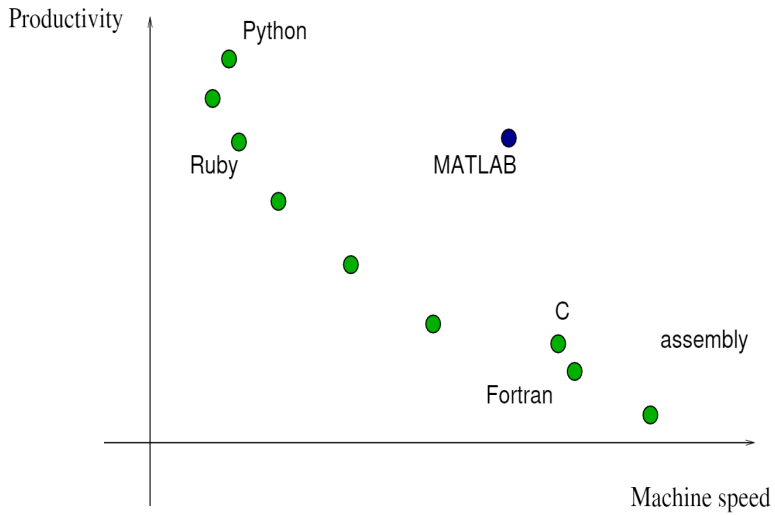


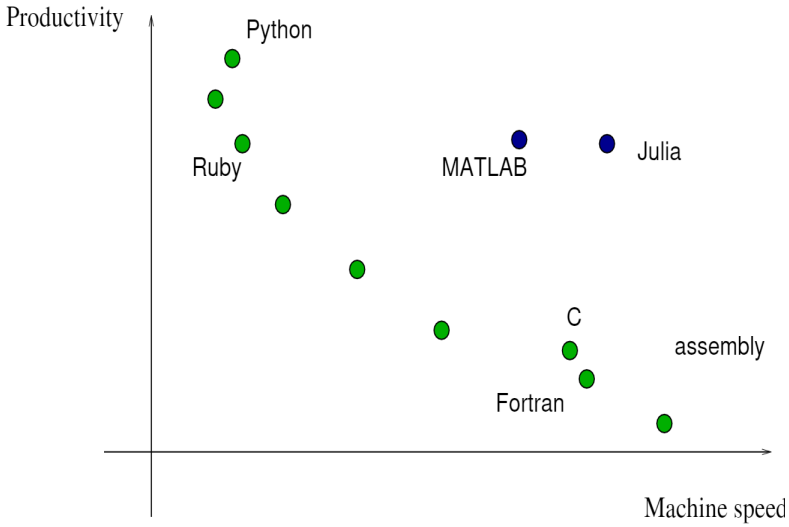


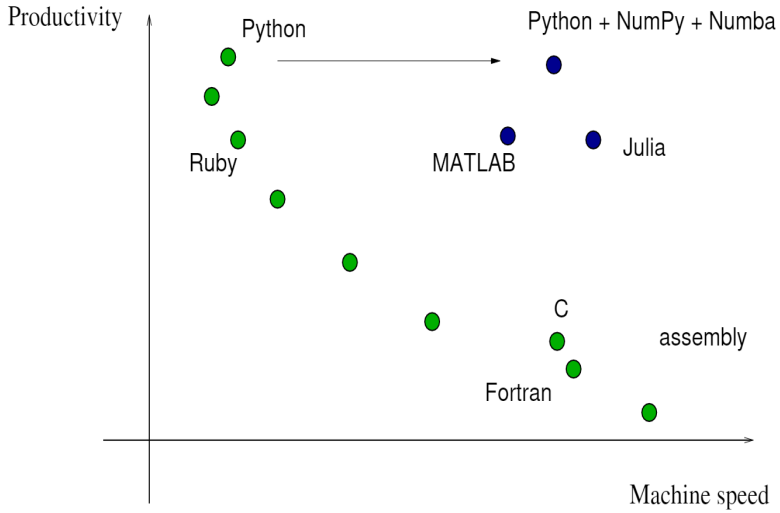

Why Programming?
Why Programming?
Why Programming in Economics?
Programming Languages
Why Python?
Comparing
Python development
Popularity of Python
Trade-Offs
Workshop Content
WorkshopContent
How to Start?
How to Start?
Thank you

# Trade-Offs




Python for Economics
Saeed Saffari
Why Programming?
Why Programming?
Why Programming in Economics?
Programming Languages
Why Python?
Comparing
Python development
Popularity of Python
Trade-Offs
Workshop Content
WorkshopContent
How to Start?
How to Start?
Thank you

# Workshop Content

- Python Setup
- Object and Data Structure Basics
- Python Statements
- Methods and Functions
- Modules, Packages
- Libraries
  - NumPy
  - Matplotlib
  - Pandas
  - SymPy and SciPy
  - ...



Why Programming?
Why Programming?
Why Programming in Economics?
Programming Languages
Why Python?
Comparing
Python development
Popularity of Python
Trade-Offs
Workshop Content
WorkshopContent
How to Start?
How to Start?
Thank you

# How to Start?

- **Read, Read, Read! Write, Write, Write!**
- GitHub and Stack Overflow
- Editors
- Anaconda
- Search Skill

# Thank you

- ANY QUESTION...?



Why Programming?
Why Programming?
Why Programming in Economics?
Programming Languages
Why Python?
Comparing
Python development
Popularity of Python
Trade-Offs
Workshop Content
WorkshopContent
How to Start?
How to Start?
Thank you