

Python and R

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IFRI Master 2023-2024

PART 1

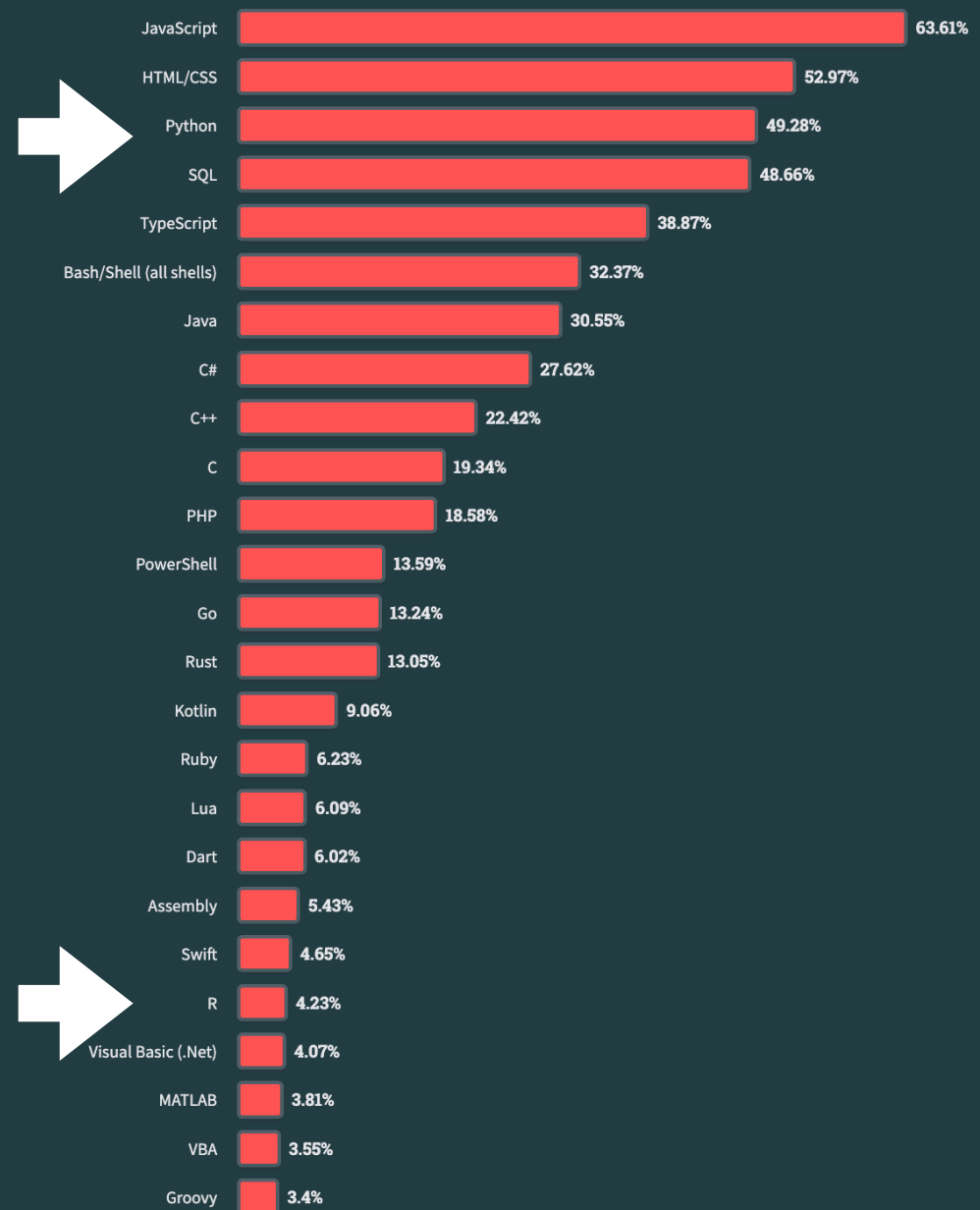
Introduction and Basic Programming

Chap.1

Introduction

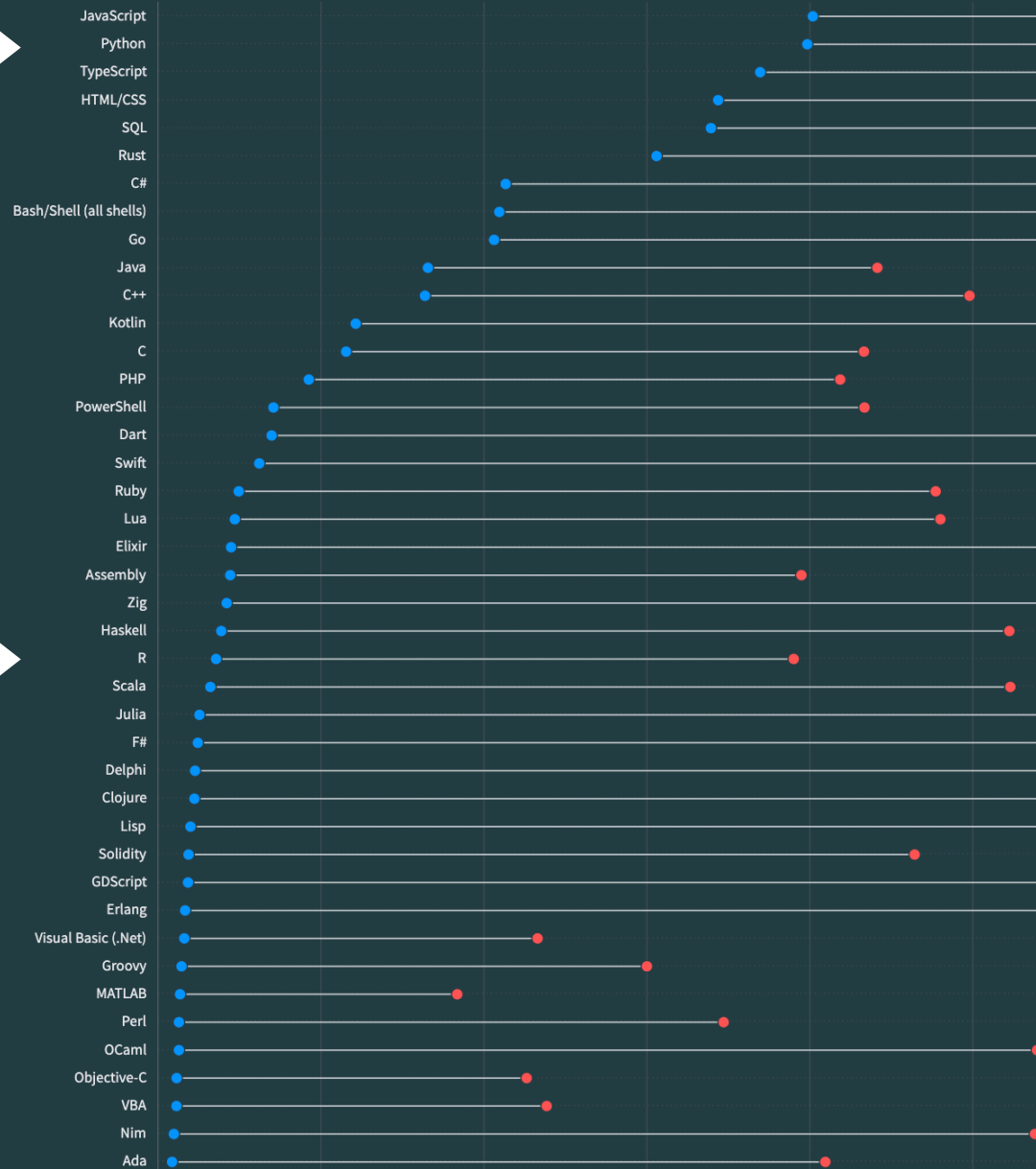
Introduction (1/3)

Python and R Usage Statistics



Introduction (1/3)

Python and R Loves/Dreaded Statistics



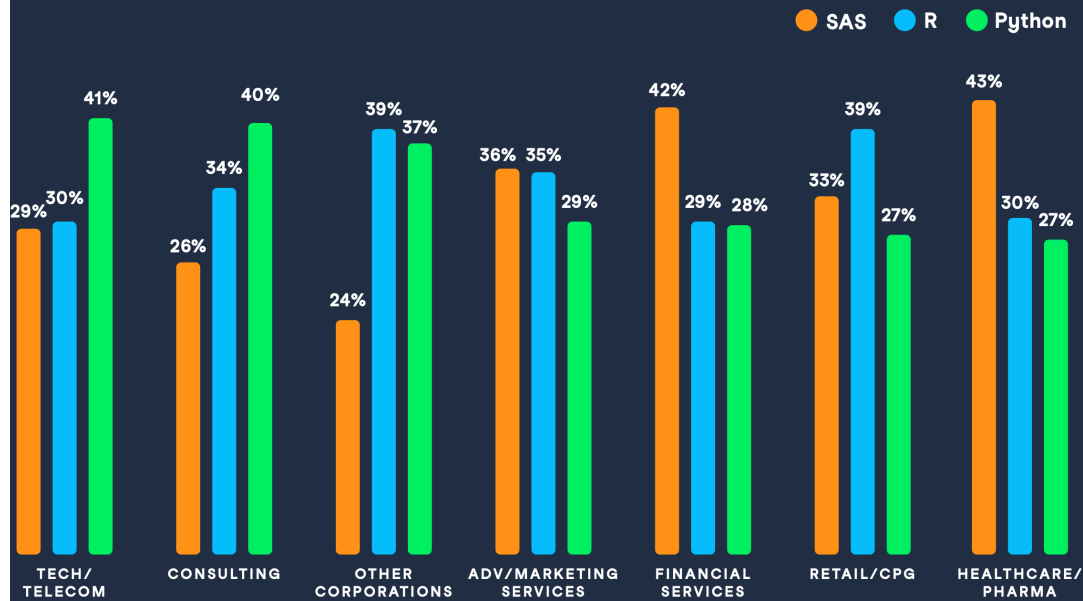
Introduction (1/3)

Python and R Jobs Statistics





What is your current total annual compensation (salary, bonuses, and perks, before taxes and deductions)? Please enter a whole number in the box below, without any punctuation. If you are paid hourly, please estimate an equivalent yearly salary. If you prefer not to answer, please leave the box empty.

Introduction (2/3)



Popularity Rankings, Python vs. R

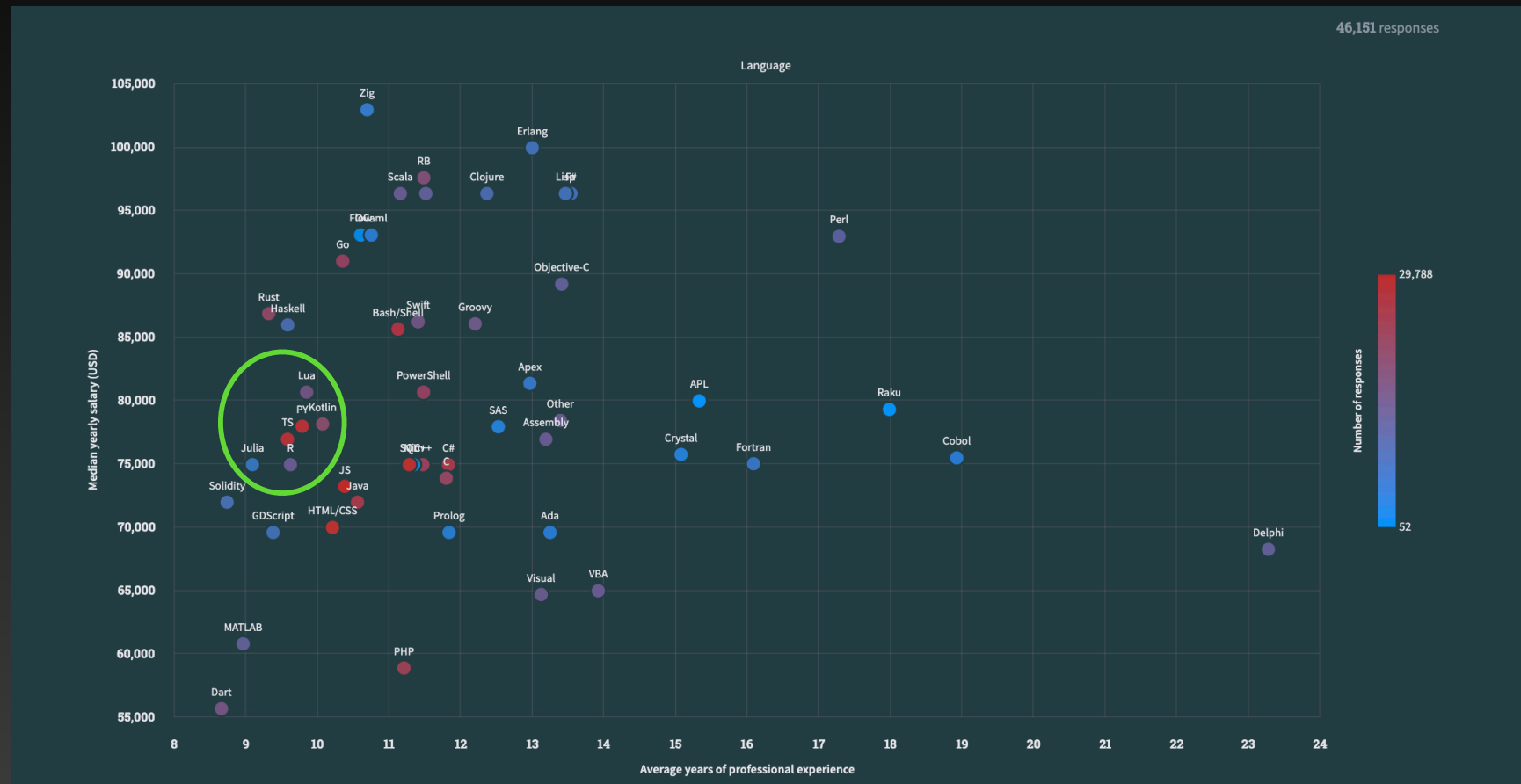
| |  Python |  R |
|------|--|---|
| 2016 | #3 | #5 |
| 2017 | #1 | #6 |
| 2018 | #1 | #7 |
| 2019 | #1 | #5 |

Source: IEEE Spectrum, Sep 2019

Python and R in DS Statistics

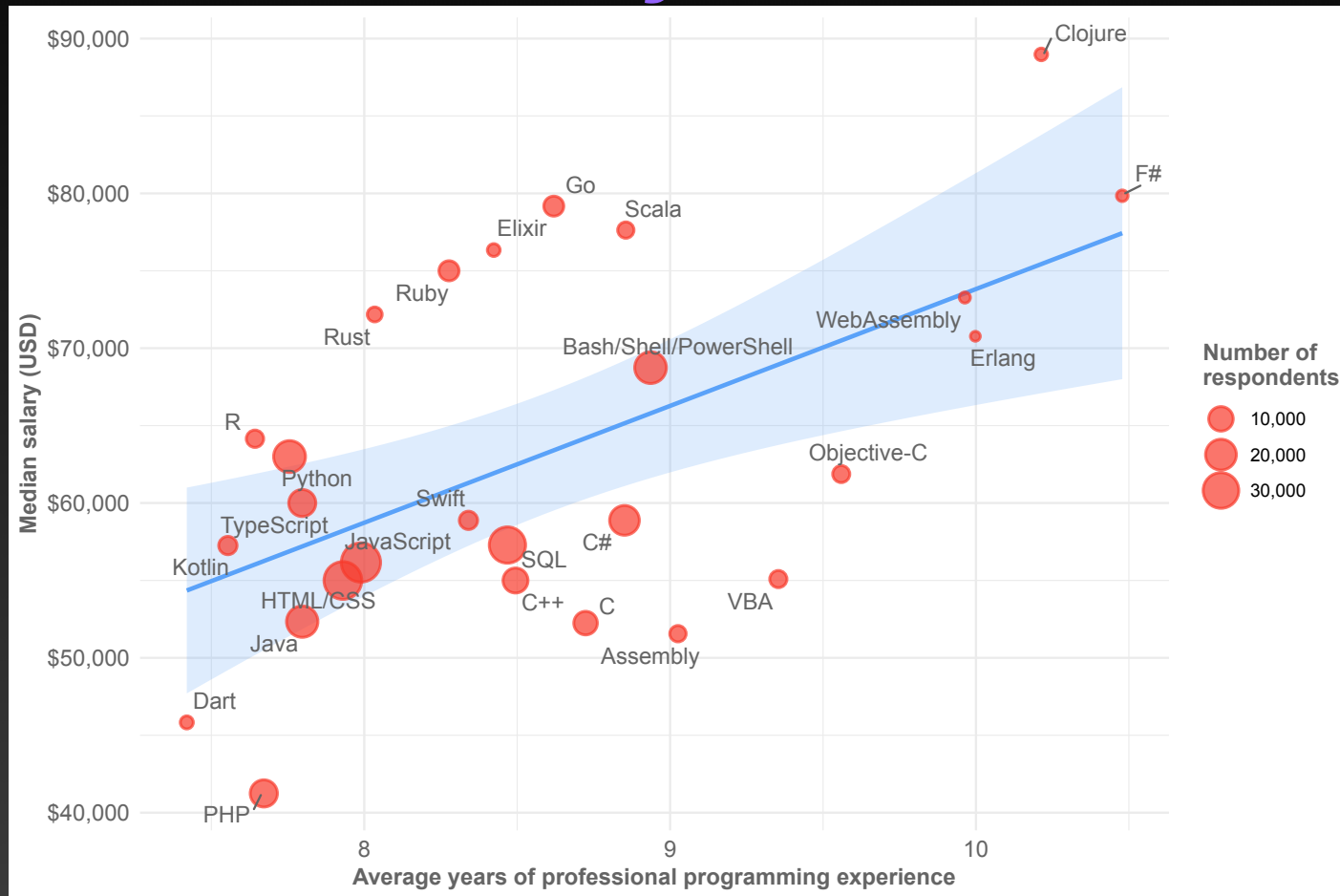
Introduction (3/3)

Python and R Salary Statistics



Introduction (3/3)

Python and R Salary Statistics (older)



Introduction (3/3)

Other stats

- Programming stats

<https://insights.stackoverflow.com/survey>

- Data science stats:

<https://www.datacamp.com/blog/python-vs-r-for-data-science-whats-the-difference>

- comparison

<https://s3.amazonaws.com/assets.datacamp.com/email/other/Python+vs+R.pdf>

Setting up Python and R

- Anaconda (Python): <https://www.anaconda.com/products/distribution>
- Jupyter Notebooks: <https://jupyter.org/install>
- R: <https://cran.r-project.org/>
- RStudio: <https://www.rstudio.com/products/rstudio/download/>

Practice - Environment Setup

Basic task:

Run Python and R environments.

Chap.2

Basic of Python Programming

Python Cheatsheet

<https://www.datacamp.com/community/tutorials/python-data-science-cheat-sheet-basics>

Python Exercises for Beginners:

<https://www.w3resource.com/python-exercises/>

Chap.3

Basic of R Programming

R Cheatsheet:

<https://rstudio.com/wp-content/uploads/2016/10/r-cheatsheet-3.pdf>

R Exercises for Beginners:

<https://www.r-exercises.com/start-here-to-learn-r/>

Comparison Guide of R and Python:

<https://www.datacamp.com/community/tutorials/r-or-python-for-data-analysis>