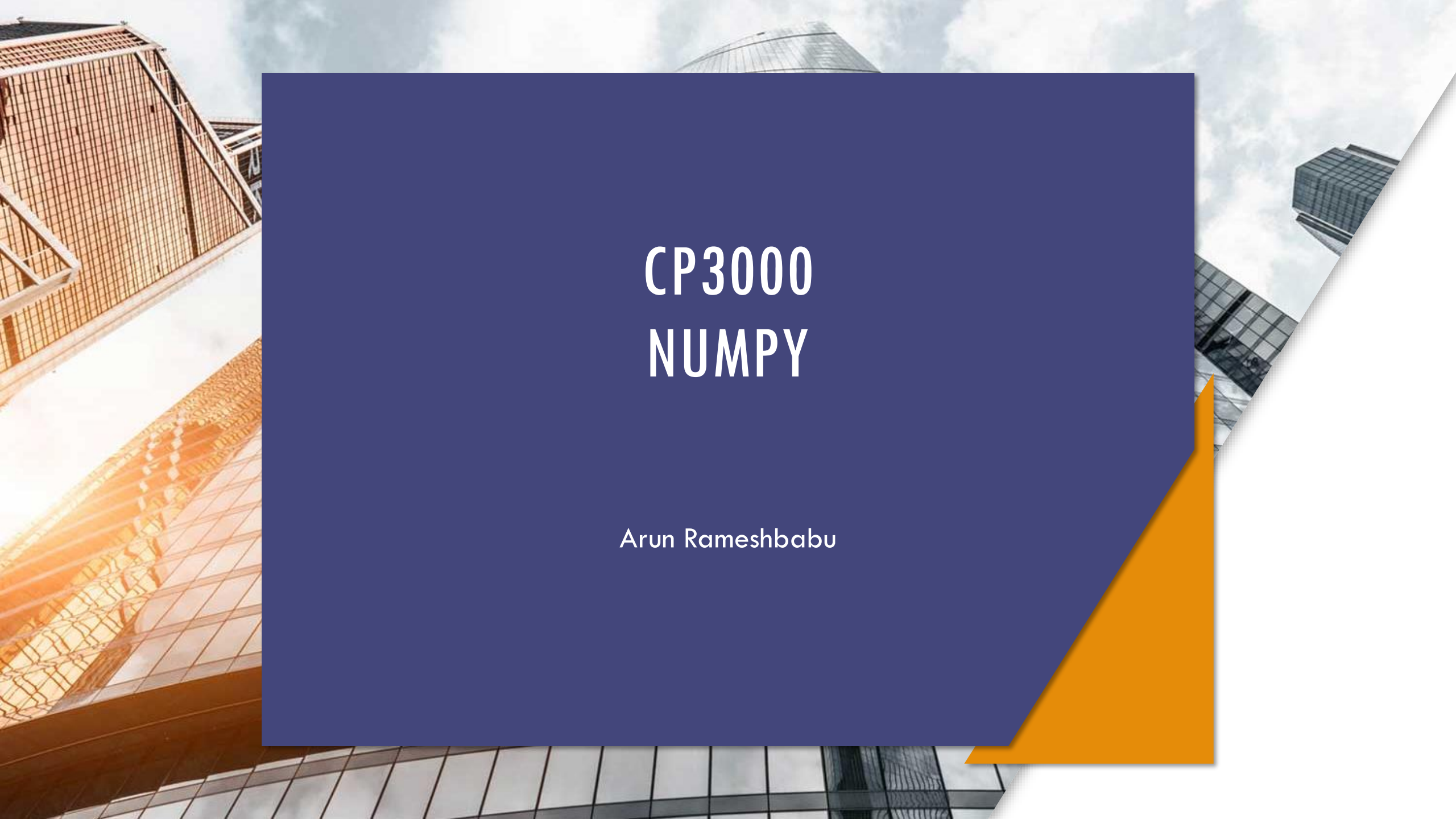


CP3000
NUMPY

Arun Rameshbabu

FAST PACED COURSE

Important tips to succeed

- Assignments
  - Read assignments as soon as they come out and start working on them.
  - You can always come back and continue once the course material has been covered.
- Beginner in programming?
  - **Practice, Practice, Practice.** There are no shortcuts or substitute for this.
  - Programming is a skill. You cannot passively absorb it.
  - Download course materials before the lecture (new materials posted every Sunday) and follow along.
  - Always do textbook and practice exercises.
  - Do not be afraid to try out python commands
    - You cannot break the machine at this stage of learning
    - Worst case, you will just have to restart the machine or kill the process.

NUMPY

- Library in python
  - Allows large-scale, mathematic-scientific calculations
  - Efficient, Quick and Flexible
- Indispensible
  - Data Science Studies
  - Includes related solutions
- Short for **Num**erical **Py**thon

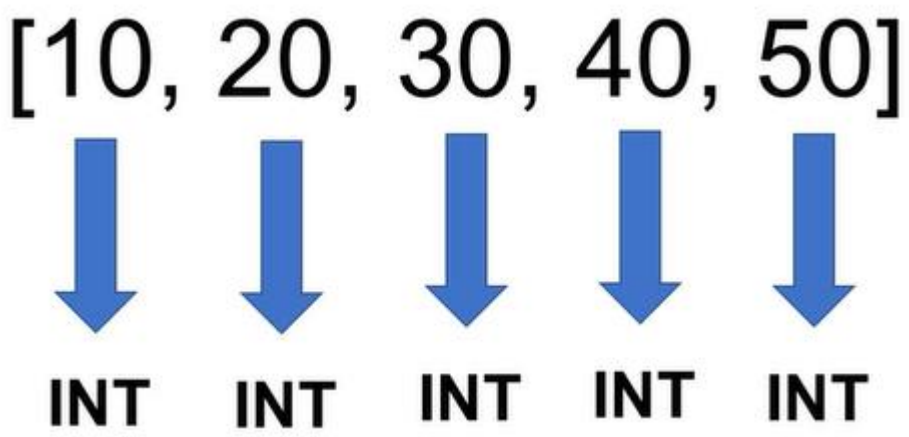
FOUNDATIONS OF NUMPY

- Early foundations were laid in 1995
  - Python's founder - Guido van Rossum
- Travis Oliphant
  - His friends
  - Finished in 2005
- Made available to us

WHY NUMPY?

- Numpy data structures very similar to lists
- Less costly data
- Able to perform vectorial operations on the data
- Example:

Lists



Numpy array