Python for Data Science

Agenda

- Why?
- Python Basics
- Numpy
- Pandas

Why?

- Python is the most popular language & choice for Data Scientist / Data Engineer across the world

- Very rich libraries & functions

- Community support

- Easy to deploy in production

Python Basics

- Jupyter notebook

Sample Python Job Profiles

- **Python Developer**
  - at Tower Research Capital LLC (View all jobs)Prague
  - TRC Czech Republic s.r.o., an affiliate of the high-frequency proprietary trading firm, Tower Research Capital LLC ("Tower"), seeks a Python Developer to join its Prague office. The ideal candidate will have means of efficient data analysis at heart, be passionate about improving data processing, be an expert in Python, and will enjoy working with junior-level C++ developers as well as mathematicians.

- **Responsibilities:**
  - The Python Developer will be responsible for:
  - Designing, implementing, and maintaining algorithms for large-volume data processing, support tools for monitoring, reporting and market data analyses
  - Designing high-performance implementations of mathematical models
  - Optimizing code performance and process workflow
  - Identifying and resolving overall performance bottlenecks

- **Qualifications:**
  - Tower encourages recent graduates or experienced candidates to apply. The ideal candidate will have:
  - A bachelor's or master's (preferred) or PhD degree in computer science (preferred), mathematics, engineering, or from a related field
  - Expertise in object-oriented programming in Python
  - The ability to think rigorously and independently and cooperate within a small team
  - Brilliant problem-solving abilities
  - A sense of good practice with respect to software development techniques (clean code, testing, code review)
  - Working knowledge of Unix/Linux
  - Knowledge of Cython, PyPy, and the following Python packages: NumPy, SciPy, Pandas, Matplotlib, PyQt (a plus)
  - Experience with multiprocessing & synchronization primitives (a plus)
  - Interest in financial markets (a plus)
  - Excellent written and verbal communication skills in both Czech and English