



Program of the Applied Bootcamp:

10 days, 50 hours of classes

From February 18th to March 1st 2019

PARIS - SOPHIA-ANTIPOLIS - ONLINE - SPOC

APPLIED MATHEMATICS AND DATA STRUCTURES (5 days)

Mathematic fundamentals review, data structures for algorithmics on Python
Modeling elements (all pre-calculus level)

- Functions and inverse functions
- An introduction to vector fields (pre-calculus introduction to linear algebra)
- An introduction to series

Data Structures for algorithmics: a benchmark on Python

- An introduction to data simulation
- An introduction to data structures

Design structures for fitting well known libraries (glmnet, xgboost, sci-kit learn)

INTRODUCTION TO IT SYSTEMS (2 days)

Fundamentals of Computer Architecture & Operating Systems

- A journey from the Turing Machine to (not so) modern architectures, fundamentals of hardware architectures.
- The illusion of multi-tasking: an engineering feat resting on operating systems.

INTRODUCTION TO NETWORKS (1 day)

Fundamentals of networks layers, protocols and address spaces

INTRODUCTION TO INFRASTRUCTURES (1 day)

Fundamentals of IT infrastructure

INTRODUCTION TO IT SYSTEMS (1 day)

Fundamentals of Programming

- When computer science does not need a computer: the curious case of the "algorithmic language".
- Before Python came a man called "C" and "he" changed everything.

PARIS CAMPUS

4, Rue de la Collégiale
75005 Paris, France
Tél. +33 171 182 402



SOPHIA-ANTIPOLIS CAMPUS HEADQUARTERS

Les Templiers, 950 Route des Colles
Sophia-Antipolis, 06410 Biot, France
Tél. +33 422 106 925