Module administration

C4CSS: Demystifying Computing with Python

- introduce coding and Python
- focus on simple ways to develop software autonomously
- We will learn programming with Python!
- If time allows: basic Data Science methods

Keywords

- Data types and data structures
- Conditional and loops
- User input output
- Text files
- Functions
- Data cleaning
- Basic stats
- Relational databases and their Structured query language (SQL)

On module completion you will be able to:

- Write Python programs
- Feel confident to develop personal projects
- Understand the basics of algorithms and coding
- Use different data sources
- Visualize data
- use the SQL language to query relational databases; set up and run simple databases

Syllabus

1. Quick, hands-on introduction to programming with python
2. The triad prolem/algorithm/implementation
3. basic structures, iterations & functions
4. List, Dictionaries, Sets and Tuples
5. Numerical functions: numpy
6. Data visualisation: Matplotlib
7. Data ingestion, tables and time series: Pandas
7. Introduction to Structured the Query Language (SQL)
8. Creating simple SQL databases
9. writing SQL queries to extract data
10. embed SQL in Python
11. Developing a Case Study with Python

Class activities

- **Laptops on, smartphones off**
- **Lectures and labs mix up seamlessly**
- **use the the Teams channel for quick questions**

instructor:
Dr Alessandro Provetti

- PhD on AI for simplifying programming languages
- Research on understanding user data in “Social web” platforms.
- I founded of the Birkbeck Institute for Data Analytics

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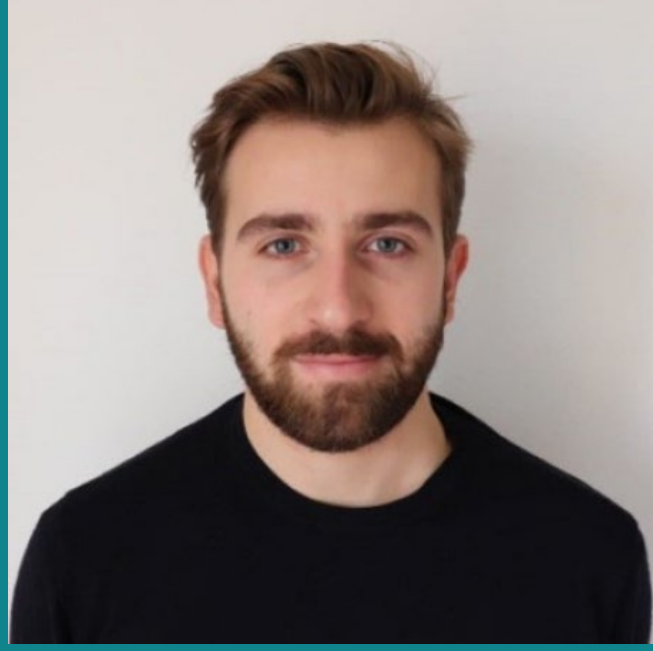
Guest lecturer: Dr Federico Pilati



- PhD in Computational Social sciences at IULM, IT
- Post-doc at Université de Genève, CH

Research on the emergence of online communities within digital platforms (e.g. Wikipedia, Twitter, TikTok, Twitch).

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