

# Advanced Python

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# Who am I?

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UNIVERSITAT  
POLITÈCNICA  
DE VALÈNCIA



Maastricht  
University

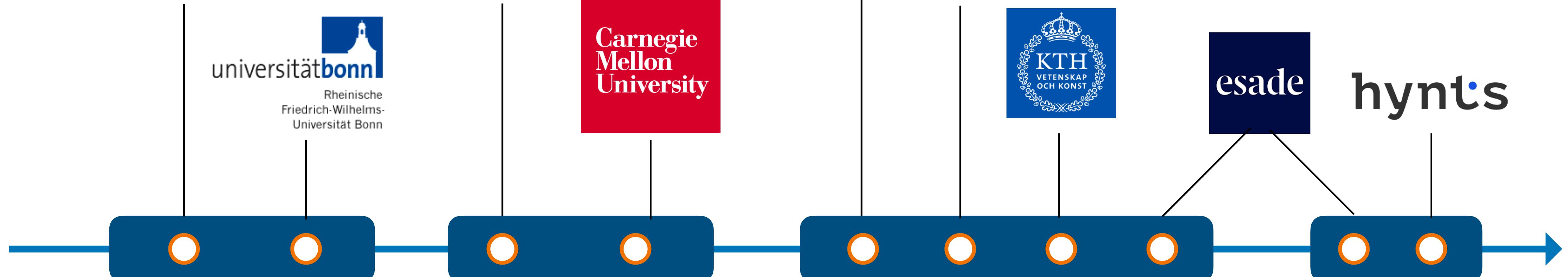


Universitat  
Pompeu Fabra  
Barcelona

ETH zürich



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# What are we going to learn?

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- Scripting (VStudio)
- GitHub 2 (CD & CI)
- Classes
- Project Structure
- Click
- Testing
- Linting + Clean Code
- Debugging
- Multiprocessing
- GitHub 1 (Version Control)



```
31     def __init__(self, path=None, debug=False):
32         self._path = path
33         self._logger = logging.getLogger(__name__)
34         self._file = None
35         self._fingerprints = set()
36         self._logduplicates = True
37         self._debug = debug
38         self._logger.setLevel(logging.DEBUG if debug else logging.INFO)
39
40         if path:
41             self._file = open(os.path.join(path, 'fingerprint.log'), 'a')
42             self._file.seek(0)
43             self._fingerprints.update(self._file.read().split())
44
45     @classmethod
46     def from_settings(cls, settings):
47         debug = settings.getbool('SUPERVISOR_DEBUG')
48         return cls(job_dir(settings), debug)
49
50     def request_seen(self, request):
51         fp = self.request_fingerprint(request)
52         if fp in self._fingerprints:
53             return True
54         self._fingerprints.add(fp)
55         if self._file:
56             self._file.write(fp + os.linesep)
57
58     def request_fingerprint(self, request):
59         return request_fingerprint(request)
60
61     def __del__(self):
62         if self._file:
63             self._file.close()
```

# How is it going to be graded?

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- **60% Active participation and class attendance:**
  - 5 % Attendance
  - 55 % coding exercises (May involve after class work)
  - Exercises will be uploaded to the Moodle after every session.



# How is it going to be graded?

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- **60% Active participation and class attendance:**
  - 5 % Attendance
  - 55 % coding exercises (May involve after class work)
  - Exercises will be uploaded to the Moodle after every session.
- **40% Final project:**
  - GitHub repository containing all your files and scripts applying the concepts learned in class on a dataset.
  - Upload both to the Moodle max two weeks after the last lecture.

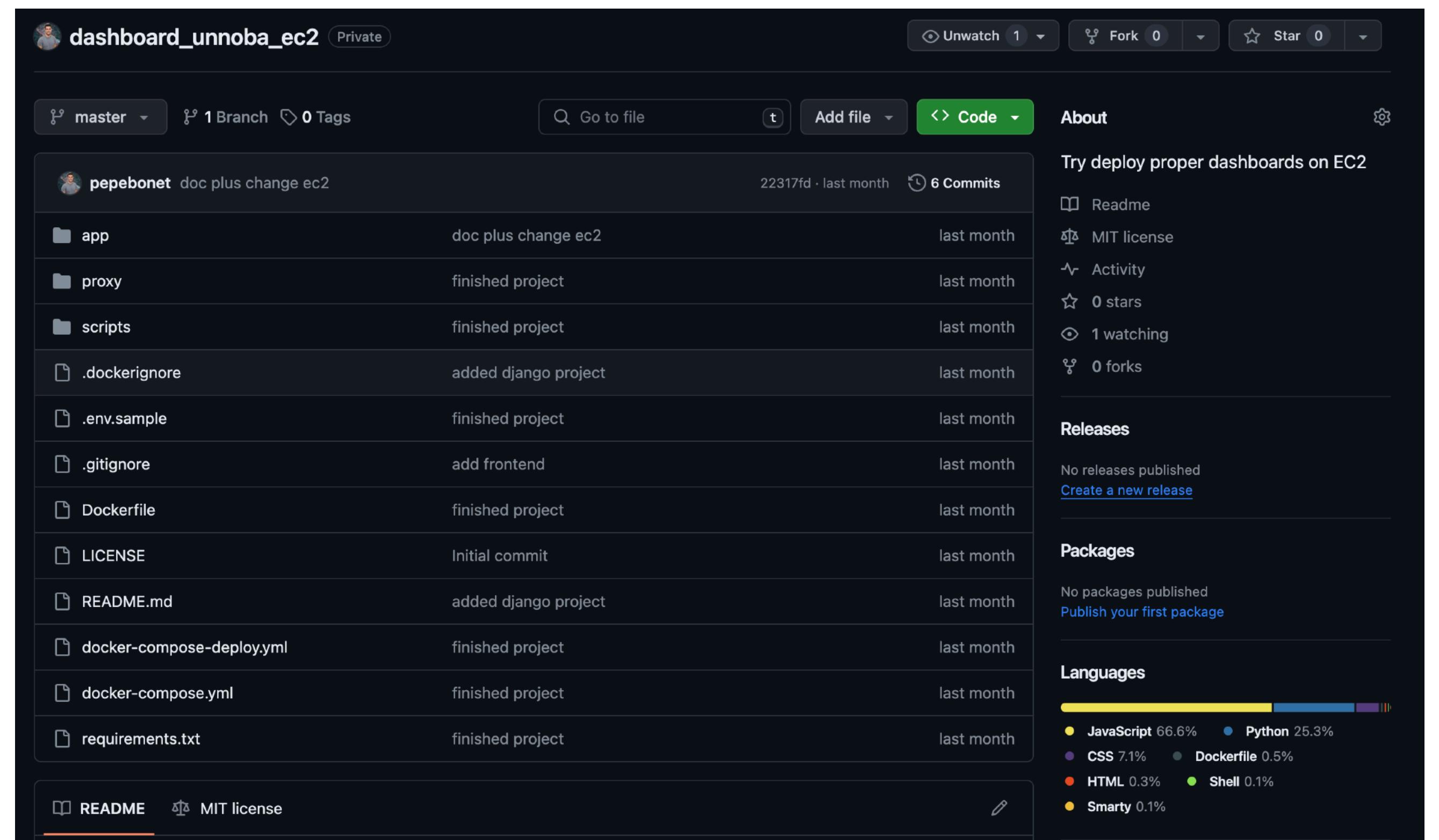


# Final Project

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A GitHub repository containing all the things we see during the course for a given dataset:

- Scripting (VStudio)
- Classes
- Click
- Debugging
- GitHub 1 (Version Control)
- GitHub 2 (CD & CI)
- Project Structure
- Testing
- Multiprocessing
- Linting + Clean Code



# Prerequisites of the Course

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- Beginners Python Course
- Intermediate Python Course
- Pandas, Matplotlib, SkLearn
- Functions
- Data Analysis
- Comment and write clean code

