

# Mattia Setzu

Third-year Ph.D. student in Computer Science at UniPI (XXXIV cycle, 2018-2021)

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📍 Pisa, IT

🔗 [msetzu.github.io/about](https://msetzu.github.io/about)

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🐙 [github.com/msetzu](https://github.com/msetzu)

## Publications

- **GLocalX - From Local to Global Explanations of Black Box AI Models**, Mattia Setzu, Riccardo Guidotti, Anna Monreale, Franco Turini, Dino Pedreschi, and Fosca Giannotti; Special Issue on Explainable Artificial Intelligence, Journal of Artificial Intelligence, Feb. 2021.  
DOI: 10.1016/j.artint.2021.103457 | Download
- **Global Explanations with Local Scoring**, Mattia Setzu, Riccardo Guidotti, Anna Monreale, and Franco Turini; XKDD@ECML/PKDD, Proceedings for the The European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases, Sept. 2019.  
DOI: 10.1007/978-3-030-43823-4\_14 | Download
- **SPARQL Queries over Source Code**, Setzu Mattia, Atzori Maurizio; Preceedings for the International Conference on Semantic Computing (ICSC), Feb. 2016.  
DOI: 10.1109/ICSC.2016.65 | Download
- (Retired) **CodeOntology: a Java semantic database**, Setzu Mattia, Atzori Maurizio; Preceedings for the Undergraduate Research Competition at the International Conference for Management of Data (SIGMOD), Jun. 2016.

## Education

### Master's degree in Computer Science, Università di Pisa

📅 Sep 2016 – Oct 2018

📍 Pisa, IT

**Thesis** Building Global Interpretable Classifiers Via Local Explanations

**Relevant courses** Machine Learning, Natural Language Processing, Data Mining, Information Retrieval, Computational Mathematics, Advanced Algorithms, Advanced Programming, Parallel and Distributed Algorithms, and Advanced Databases.

**Score** 110 with honors/110

**Extra-curricular activities** PhD+ programma di valorizzazione della ricerca, innovazione e spirito imprenditoriale; Research, innovation and the future of ICT seminars; Soccer Data Challenge

### Bachelor's degree in Computer Science, Università di Cagliari

📅 Sep 2012 – Mar 2016

📍 Cagliari, IT

**Thesis** CodeOntology: a Java semantic database

**Relevant courses** Programming fundamentals, OO programming, Computer architectures, Operating Systems, Computer Networks, Linear Algebra, Differential Calculus, Statistics, Automata and Formal Languages, Compilers & interpreters, Scientific Computing, Web Development, Human-Machine Interaction, Databases, and Software Engineering. **Score:** 103/110

**Extra-curricular activities** Startup Weekend Cagliari 2015 and 2016 edition; Semantic Web and Open Data seminar; Cagliari Open Data Day 2016; Contamination Lab UniCA, Semantic Web Lab.

## Research Interests



### Explainable AI

I focus on research and development of transparent machine learning models understandable by humans.

## Software

### GLocalX

[github.com/msetzu/glocalx](https://github.com/msetzu/glocalx)

### RRS

[github.com/msetzu/rule-relevance-score](https://github.com/msetzu/rule-relevance-score)

## Skills & tools

Python

Pandas

Numpy

Matplotlib

Keras

SKlearn

Jekyll

HTML5

CSS3

Javascript

Latex

Markdown

SQL/SPARQL

OWL

git

Vagrant

Linux

## Teaching experience

### University of Pisa, Teaching Assistant

📅 Jan 2019 – May 2019

- Teaching assistant for the "Programming Fundamentals" course, a first-year course on programming fundamentals for Physics bachelor students.

## Work experience

### Need for Nerd, Back-end developer

📅 Nov 2015 – Feb 2016

<http://needfornerd.com/>

- Developed back-end and the front-end of portal.