*For publication*

# MATTEO FILOSA CURRICULUM VITAE

**Matteo Filosa** is a **graduate student** in Engineering in Computer Science (scientific disciplinary sector **ING-INF/05**) at Sapienza Università di Roma, Italy, Dipartimento di Ingegneria Informatica, Automatica e Gestionale Antonio Ruberti (DIAG - Department of Computer, Control and Management Sciences and Engineering).

## Part I – General Information

| Full Name | Matteo Filosa |
|---|---|
| Spoken Languages | Italian (Native), English (Excellent), French (Elementary Proficiency) |

## Part II – Education

| Type | Year | Institution | Notes |
|---|---|---|---|
| University graduation | 2023 | Sapienza University of Rome | Master's Degree in Engineering in Computer Science. Final mark: 105/110. Master Thesis: "*Assessing the automated modeling of exploratory user interaction in visual systems*". Advisor: Prof. Tiziana Catarci |
| University graduation | 2020 | Sapienza University of Rome | Bachelor's Degree in Engineering in Computer Science. Final mark: 101/110. Bachelor Thesis: "*Gymtastic: il sito per creare il tuo piano di allenamento*". Advisor: Prof. Riccardo Rosati |

## Part III – Research interests

The research interests of Matteo Filosa concern theoretical, methodological, and practical aspects in different areas of Computer Science, including Process Modeling and Human-Computer Interaction. Such topics have been challenged in the application domains of visualizations' optimization.

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Since October 2022, Matteo Filosa has been part of an international team, involved in a research activity about modelling visualizations and exploiting those models to optimize queries performed against a database, to reduce latency in particular cases of user interaction.

| Keywords | Brief Description |
|---|---|
| **Process Modeling**<br><br>*Automated generation of models for exploratory user interaction* | **Process Modeling** is the first and most important step in the BPM lifecycle, which intends to provide a high-level specification of a business process that is independent from implementation and serves as a basis for process automation and verification.<br><br>On this topic, **Matteo Filosa** is currently investigating, in the context of an international research group, how to provide *automatic techniques for process modeling* that could discover and visualize the *state chart* representing the user interaction in visualization systems. |
| **Human-Computer Interaction**<br><br>*Multimodal User Interfaces (UIs), Usability of Interactive Systems* | **Human-Computer Interaction (HCI)** is a research topic focusing on the interfaces between users and computers. In the context of HCI, **the current research of Matteo Filosa** concentrates on modeling information visualizations and exploiting the models to build the expected users' behavior that can be used to generate predictions and perform query optimization.<br><br>His current activities tackle a well-known (unsolved) challenge in this area, namely the *automated quantification of usability of interactive systems*. |

**Part IV – Publications**

**Theses**

M1. **M. Filosa**. *Assessing the automated modeling of exploratory user interaction in visual systems* M.Sc. Thesis in Engineering in Computer Science, Sapienza University of Rome, Italy. January 2023.

B1. **M. Filosa**. *Gymtastic: il sito per creare il tuo piano di allenamento.* B.Sc. Thesis in Engineering in Computer Science, Sapienza University of Rome, Italy. October 2020.

**Part V – Under review**

Tiziana Catarci, Marco Angelini, Dario Benvenuti, **Matteo Filosa**. *Title not shown for anonymity,* 19th International Conference of Technical Committee 13 (Human- Computer Interaction) of IFIP (International

Federation for Information Processing), INTERACT 2023, York, United Kingdom, 28th August – 1st September 2023*.*

**Part VI – Further Information**

**(VI A) – Participation to Research Groups**

Matteo Filosa is/has been involved in the following research group:

(June 2022 – present) **International research group** about the enhancing and optimization of the classic visualization pipeline. Contribution on the validation of the automatic discovery of violations in latency on Falcon's 7 million flights visualization system by performing an analytical-based user study.

**(VI B) – Erasmus Experience**

(February 2022 – June 2022) **Participation to the Erasmus+ Programme in Linköping, Sweden:** Matteo Filosa studied in Linköping University, taking 4 exams.

**(VI C) - Academic Results:**

Following, there is the list of my academic results for both the undergraduate and the graduate degree. The format is Name – Date(dd/mm/yyyy) – Mark.

- **Undergraduate degree:**
  - Analisi Matematica I – 17/01/2018 – 20
  - Fondamenti di Informatica I – 22/01/2018 – 19
  - Geometria – 19/02/2018 – 21
  - Lingua Inglese – 13/06/2018 – Idoneo
  - Tecniche di Programmazione – 13/06/2018 – 30
  - Fisica – 25/07/2018 – 18
  - Teoria dei Sistemi – 10/01/2019 – 21
  - Ricerca Operativa – 28/01/2019 – 30
  - Calcolo delle Probabilità e Statistica – 15/02/2019 – 21
  - Analisi Matematica II - 18/02/2019 – 30
  - Progettazione del Software – 10/06/2019 – 24
  - Controlli Automatici – 14/06/2019 – 23
  - Sistemi di Calcolo – 24/06/2019 – 30L
  - Fondamenti di Informatica II – 13/09/2019 – 24
  - Economia e Organizzazione Aziendale – 15/01/2020 – 26
  - Telecomunicazioni – 21/01/2020 – 27
  - Basi di Dati – 24/01/2020 – 26

- o Sistemi di Calcolo II – 20/02/2020 – 25
- o Laboratorio di Intelligenza Artificiale e Grafica Interattiva – 08/06/2020 – Idoneo
- o Linguaggi e Tecnologie per il Web – 09/06/2020 – 30
- o Programmazione Funzionale e Parallela – 22/06/2020 – 30
- o Reti di Calcolatori – 07/07/2020 – 24
- o Elettronica – 15/09/2020 – 30
- o Prova Finale – 30/10/2020 – Idoneo
- **Graduate degree:**
  - o Algorithm Design – 04/02/2021 – 25
  - o Network Infrastructures – 18/02/2021 – 28
  - o Capacity Planning – 09/06/2021 – 19
  - o Human Computer Interaction – 23/06/2021 – 29
  - o Digital Entrepreneurship – 05/07/2021 – 30
  - o Distributed Systems and Computer and Network Security – 15/07/2021 – 22
  - o Software Engineering – 23/07/2021 – 24
  - o Data Management – 17/01/2022 – 26
  - o System and Enterprise Security – 04/02/2022 – 28
  - o Mobile Applications and Cloud Computing – 11/02/2022 – 30
  - o Machine Learning * – 12/07/2022 – 27
  - o Seminars in Advanced Topics in Computer Science Engineering * – 12/07/2022 – Idoneo
  - o Social Networks and On-line Markets * – 12/07/2022 – 27
  - o Web Security and Privacy * – 12/07/2022 – 30
  - o Prova Finale – 31/01/2023 – Idoneo
- **\*: Exams taken abroad** (Name – Mark [*Scale: from 1 to 5*]):
  - o Advanced Web Programming – 5
  - o Automated Planning – 3
  - o Software Quality – 4
  - o Web Programming – 3

Date: 08/02/2023                    (non soggetta ad autentica ai sensi dell'art. 39 del D.P.R. 28.12.2000, n. 445)