Simone Agostinelli

Curriculum Vitae

Personal Information

First name	Simone
Last Name	Agostinelli

Education

November 2018 May 2022	**Ph.D. Course**, *Sapienza University of Rome*, Rome. Ph.D. program in Engineering in Computer Science. My research area is Business Process Management (BPM) with particular focus on Process Mining, Robotic Process Automation (RPA) and Automated Planning for BPM
October 2015 January 2018	**Master's Degree**, *Sapienza University of Rome*, Rome, 109/110. Master of Science in Engineering in Computer Science - Software and Services specialization
October 2012 October 2015	**Bachelor's Degree**, *Sapienza University of Rome*, Rome, 98/110. Bachelor of Science in Engineering in Computer Science and Control Engineering
September 2007 June 2012	**Diploma**, *I.T.I. G. Lattanzio*, Rome. Perito Industriale Capotecnico Informatico (Progetto "ABACUS")

Master's Thesis

Title	*Applying process mining techniques in a real healthcare case study*
Advisor	Prof. Massimo Mecella
Description	The objective of the thesis was the application of process mining techniques on a real case of an hospital in Rome. Relevant event logs were extracted directly from the hospital information system and the results show that process mining can be used to provide new insights that facilitate the improvement of existing careflows.

Bachelor's Thesis

Title	*Sistema di prenotazione posti remoto*
Supervisor	Prof. Francesco Quaglia
Description	designing and implementation (in C-UNIX) of a client/server application that allows users to book a cinema room.

Teaching Activities

2nd Semester A.Y. 2021/2022   **Tutor**, *Sapienza University of Rome*, Department of Computer, Control and Management Engineering Antonio Ruberti, Via Ariosto 25 00185 Rome.
Teaching assistant for the 1st year course "Fondamenti di Informatica", in the Bachelor's Degree in Management Engineering

2nd Semester A.Y. 2020/2021   **Tutor**, *Sapienza University of Rome*, Department of Computer, Control and Management Engineering Antonio Ruberti, Via Ariosto 25 00185 Rome.
Teaching assistant for the 1st year course "Fondamenti di Informatica", in the Bachelor's Degree in Management Engineering

2nd Semester A.Y. 2019/2020   **Tutor**, *Sapienza University of Rome*, Department of Computer, Control and Management Engineering Antonio Ruberti, Via Ariosto 25 00185 Rome.
Teaching assistant for the 1st year course "Fondamenti di Informatica", in the Bachelor's Degree in Management Engineering

1st Semester A.Y. 2018/2019   **Tutor**, *Sapienza University of Rome*, Department of Computer, Control and Management Engineering Antonio Ruberti, Via Ariosto 25 00185 Rome.
Teaching assistant for the 2nd year course "Progettazione del Software", in the Bachelor's Degree in Computer and System Engineering

Awards

2019   **Best Forum Paper Award**, *31st International Conference on Advanced Information System Engineering*, CAiSE'19 Forum.
Award for the paper "Achieving GDPR Compliance of BPMN Process Models"

Working Experience

March 2018 October 2018   **Analyst Consultant**, *Capgemini*, Via di Torre Spaccata 140, 00173 Rome.
Working on the service line Big Data Computing for Sky Deutschland. The projects in questions focus on the development of Spark jobs on top of the following technologies: Hadoop, Hive, Impala, Kudu, Kafka, Elasticsearch

January 2018 February 2018   **Software Development Engineer**, *internship at ALTEN Italia*, Via Adolfo Ravà 124, 00142 Rome.
Working for TIM's SPID project both on back-end and front-end sides

June 2011   **Programmer**, *internship at INFN (Istituto Nazionale di Fisica Nucleare) di Frascati*, Via Enrico Fermi 40, 00044 Frascati (Rome).
Design of a computing center able to handle at least 1800 TByte of data, using C language for UNIX machines

National/International Projects

January 2021 present   **DataCloud**.
European project about enabling the big data pipelines in the computing continuum. In this context, the target is to define a semi-automated tool called DIS-PIPE, that will allow companies to discover the big data pipelines laying behind their workflows, visualizing them and performing analytics.

April 2019 December 2020   **K4G**, *Knowledge for Giustizia*.
The main objective of the project is to study, analyze and define a system that allows the management of administrative and support processes of the Department of Justice Affairs.

Programming languages

Basic	HTML, XML, CSS, JavaScript, PHP, SQL, Assembly, C++
Intermediate	Android, C
Advanced	Python, Java

Computer skills

Operating Systems	Windows: daily use for internet surfing and Java/Python programming. Linux: used both for C programming and personal curiosity.
Office Automation	LaTeX, OpenOffice, LibreOffice, Microsoft Office
Modeling Languages	Unified Modeling Language (UML), Entity-Relationship (ER)
Known IDE	IntelliJ Idea, Eclipse, Netbeans, Android Studio
Standards	HTTP, Rest, Soap, TCP/IP, SSL, SSH
Methodologies	Waterfall, Agile (Scrum), eXtreme Programming
Frameworks	Spring, Hibernate, MG4J, Hadoop MapReduce, Apache Spark
Others	Arduino, Maven, Git, Virtualbox, Tomcat, OracleDB, MySQL, ActiveMQ, Kafka, ProM, Bizagi Modeler, Bizagi Studio, Netkit, Wireshark, SoapUI, Elasticsearch, Kibana, Hive, Impala, Kudu, Docker

Others

Communicative skills	Very good communication skills in a development environment where teamwork prevails
Organizational and management skills	Ability to work in stressful situations respecting expiration dates, behaviour matured during university courses and improved in the working period. Excellent problem solving skills
Professional skills	Good knowledge of cabling and network topologies
Driving license	A2, A, B

Languages

Italian	**Mother tongue**	
English	**Intermediate**	*Conversationally fluent*
French	**Basic**	*Basic words and phrases only*

List of publications

[1] **Reactive Synthesis of Software Robots in RPA from User Interface Logs**, *Agostinelli S., Lupia M., Marrella A., Mecella M.*, Journal of Computers in Industry, 2022.

[2] **Interactive Segmentation of User Interface Logs**, *Agostinelli S., Leotta F., Marrella A.*, 19th Int. Conference on Service-Oriented Computing, Dubai, 22-25 November 2021.

[3] **Discovering Declarative Process Model Behavior from Event Logs via Model Learning**, *Agostinelli S., Bergami G., Fiorenza A., Maggi F.M., Marrella A., Patrizi F.*, 3rd Int. Conference on Process Mining (ICPM'21), Eindhoven, Netherlands, 31 October - 4 November 2021.

[4] **Big Data Pipeline Discovery through Process Mining: Challenges and Research Directions**, *Agostinelli S., Benvenuti D., De Luzi F., Marrella A.*, 1st ITalian forum on Business Process Management (ITBPM'21) held in conjuction with the 19th Int. Conference on Business Process Management (BPM'21), Rome, Italy, 6-10 September 2021.

[5] **SmartRPA: A Tool to Reactively Synthesize Software Robots from User Interface Logs**, *Agostinelli S., Lupia M., Marrella A., Mecella M.*, 33rd Int. Conf. on Advanced Information Systems Engineering (CAiSE 21 Forum), Melbourne, Australia, 28 June - 2 July 2021.

[6] **Exploring the Challenge of Automated Segmentation in Robotic Process Automation**, *Agostinelli S., Marrella A., Mecella M.*, 15th Int. Conf. on Research Challenges in Information Science (RCIS 2021), Limassol, Cyprus, 11-14 May 2021.

[7] **Robotic Process Automation: Automated Segmentation of User Interface Logs**, *Agostinelli S., Marrella A., Mecella M.*, De Gruyter STEM, 2021.

[8] **Supporting Governance in Healthcare through Process Mining: a Case Study**, *Agostinelli S., Covino F., D'Agnese G., De Crea C., Leotta F., Marrella A.*, published in: IEEE Access, 2020.

[9] **Automated Segmentation of User Interface Logs Using Trace Alignment Techniques**, *Agostinelli S.*, 2nd Int. Conference on Process Mining (ICPM'20) Doctoral Consortium, Padua, Italy, 4-9 October 2020.

[10] **Automated Generation of Executable RPA Scripts from User Interface Logs**, *Agostinelli S., Lupia M., Marrella A., Mecella M.*, 18th Int. Conference on Business Process Management (BPM'20), Seville, Spain, 13-18 September 2020.
 Selected among the best papers of the RPA Forum

[11] **Towards Intelligent Robotic Process Automation for BPMers**, *Agostinelli S., Marrella A., Mecella M.*, AAAI-20 Workshop on Intelligent Process Automation (IPA'20), held in conjuction with the 34th AAAI Conference on Artificial Intelligence (AAAI'20), New York, U.S.A., 7-12 February 2020.

[12] **Generating Personalized Narrative Experiences in Interactive Storytelling through Automated Planning**, *Agostinelli S., Battaglini F., Catarci T., dal Falco F., Marrella A.*, 13th Biannual Conference of the Italian SIGCHI Chapter (CHItaly'19), Padua, Italy, 23-25 September 2019.

[13] **A User Evaluation of Process Discovery Algorithms in a Software Engineering Company**, *Agostinelli S., Maggi F.M., Marrella A., Milani F.*, 23rd IEEE Int. Conference on Enterprise Computing (EDOC'19), Paris, France, 28-31 October 2019.

[14] **Verifying Petri Net-Based Process Models using Automated Planning**, *Agostinelli S., Maggi F.M., Marrella A., Mecella M.*, Workshop on Strategic Modeling and Reasoning meets Process Mining (SMRPM'19), held in conjuction with the 23rd IEEE Int. Conference on Enterprise Computing (EDOC'19), Paris, France, 28 October 2019.

[15] **Research Challenges for Intelligent Robotic Process Automation**, *Agostinelli S., Marrella A., Mecella M.*, Workshop on Artificial Intelligence for Business Process Management (AI4BPM'19), held in conjuction with the 17th Int. Conference on Business Process Management (BPM'19), Vienna, Austria, 2 September 2019.

[16] **Synthesis of Strategies for Robotic Process Automation**, *Agostinelli S.*, 27th Italian Symposium on Advanced Database System (SEBD'19), Castiglione della Pescaia, Italy, 16-19 June 2019.

[17] **Achieving GDPR Compliance of BPMN Process Models**, *Agostinelli S., Maggi F.M., Marrella A., Sapio F.*, 31st Int. Conference on Advanced Information Systems Engineering (CAiSE'19), Rome, Italy. 3-7 June 2019.
Winner of the Best Forum Paper Award

List of exams taken during the Master's Degree

Course	Mark	Date
Algorithm design	29/30	04/02/2016
Distributed systems and computer and network security	24/30	23/06/2016
Advanced programming	29/30	27/06/2016
Data management	22/30	06/07/2016
Software engineering	28/30	25/07/2016
Advanced operating systems and virtualization	30/30	02/09/2016
Network infrastructures	30 cum laude	16/01/2017
Formal methods	28/30	25/01/2017
Mobile applications and cloud computing	28/30	12/01/2017
Artificial intelligence and machine learning	27/30	10/02/2017
System and enterprise security	30/30	13/06/2017
Web information retrieval	28/30	22/06/2017
Process and service modeling and analysis	30/30	26/06/2017
Seminars in software and services for the information society	passed	22/09/2017
Final Exam	passed	15/01/2018

Il sottoscritto è a conoscenza che, ai sensi dell'art. 26 della legge 15/68, le dichiarazioni mendaci, la falsità negli atti e l'uso di atti falsi sono puniti ai sensi del codice penale e delle leggi speciali. Il sottoscritto autorizza al trattamento dei dati personali, secondo quanto previsto dalla Legge 196/03.