

# Marco Mochi

## EDUCATION

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- Faculty of Computer Engineering, University of Genoa** Genoa, Italy  
MCs in Artificial Intelligence & Human-Centered Computing 09/2018–10/2020  
– Thesis: “Artificial Intelligence techniques for solving scheduling problem of chemotherapy treatments”
- Faculty of Computer Engineering, University of Genoa** Genoa, Italy  
BCs in Computer Engineering 09/2014–07/2018  
– Thesis: “WhoPlays”
- Scientific High School “Martin Luther King”** Genoa, Italy  
High school degree 09/2009–06/2014

## EXPERIENCE

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- Research Grant** Genoa, Italy  
01/2021–present

I’m working in collaboration with Professor Marco Maratea of the University of Genoa and SurgiQ S.r.l with a research grant paid by the Department DIBRIS of the University Of Genoa. The title of the research grant is: “Metodologie di Intelligenza Artificiale per la schedulazione di trattamenti ospedalieri” that can be translated as “Artificial Intelligence methodologies for medical appointment scheduling”. The aim of the collaboration is to analyze real word problems and implement solutions using AI methodologies, in particular knowledge representation and automated reasoning.

- SurgiQ S.r.l** Genoa, Italy  
10/2020–01/2021

I’m working in SurgiQ S.r.l in collaboration with University of Genoa to develop the thesis work in a real scenario and develop other frameworks to give clinic and hospital facilities a usable tool to use artificial intelligence techniques to better manage their resources. I’m using NodeJS, Angular, GraphQL and NoSQL database for the front-end and backend while I’m using Answer Set Programming for developing AI tool.

- Trilog S.P.A.** Milan, Italy  
03/2018–05/2018

I worked for three months as a SAP ABAP developer before starting the MCs. This was a very formative experience in which I learned to collaborate and work in a working environment. Despite I worked for just three months I was able to work on some projects for famous fashion companies and learned to deal with due dates and work in an agile work environment.

## PUBLICATIONS

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1. Carmine Dodaro, Giuseppe Galatà, Marco Maratea, Marco Mochi, and Ivan Porro “**Chemotherapy Treatment Scheduling via Answer Set Programming**”, *Proceedings of the 35th Italian Conference on Computational Logic - CILC 2020, October 2020*

- Mario Alviano, Riccardo Bertolucci, Matteo Cardellini, Carmine Dodaro, Giuseppe Galatà, Muhammaad Kamran Khan, Marco Maratea, Marco Mochi, Victoria Morozan, Ivan Porro and Marco Schouten “**Answer Set Programming in Healthcare: Extended Overview**”, *Joint Proceedings of the 8th Italian Workshop on Planning and Scheduling and the 27th International Workshop on Experimental Evaluation of Algorithms for Solving Problems with Combinatorial Explosion (IPS-RCRA 2020), Online Event, November 25-27, 2020.*

## SKILLS

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- **Programming skills:** Python, Answer Set Programming, OWL, C, C++, Java, SAP ABAP, HTML, Php, CSS, XML, SQL, Javascript, Flask, Matlab
- **Microsoft Office:** Word (Advanced), PowerPoint (Advanced), Excel (Advanced)
- **Other:** GitHub and Git as version control

## LANGUAGES

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- **Language: Italian** Native
- **Language: English** B2

## PROJECTS

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### **MCs thesis in “Artificial Intelligence techniques for solving scheduling problem of chemotherapy treatments” with the University of Genoa and SurgiQ s.r.l**

The main goal of this thesis was to analyze the literature for the Chemotherapy treatments scheduling problem and develop a solution to it and then analyze the results obtained by our solution. In collaboration with the University of Genoa and SurgiQ s.r.l we proposed a solution using Answer Set Programming, a deductive language, both for the scheduling and the rescheduling problem. The thesis was then further improved to write the paper [1]

### **PRET with Technology-Enhanced Learning Digital humanities (telDh)**

This project, held by the telDh team at the University of Genoa, focused on Natural Language Processing. The goal of the project was to identify the main concepts inside a text and then create a conceptual map of hierarchy between the concepts. So, what I did with my workmate was to develop methods for extracting prerequisites relationships from textbook, develop baseline methods based on techniques presented in some research papers and then we built a web app using Flask to enable users to load a new text, run one of the baseline method and then visualize the results.

### **Start-up Incubation Program, WIP2019**

Wylab, which is the first Sports Tech Incubator in Italy, offered to me and my workmate a 3 months incubation program for the WIP2019. The project that we built was called “Green Spinning” was based on the idea of generating green energy during spinning classes thanks to dynamo technology and included an Android application developed in Java. Our main aim was to gamify the spinning class to promote health and environmental awareness and reduce costs for the gym owners. These 3 months helped me increasing my business knowledge and my soft-skills.

### **1st Place in the University Start-up Contest**

During the “Human Computer Interaction” course the professor asked to the students to develop an idea simulating a start-up. At the end of the course, the professor allowed students to participate in a contest organized in collaboration with Wylab. Presenting my project and the developments every week allowed me to train my presentation skills and trained me to have an exchange of ideas with colleagues. So, winning the final contest was very satisfactory.

## **BCs thesis “WhoPlays”**

My Bachelor’s thesis consisted on developing an Android application. This work was crucial to improve my programming skills. The application is called “WhoPlays” and was developed to help people to find a football player. Inside the app, one user could ask for a football player and a football player could see this request and decide to join them. The app used a real-time NoSQL database and a review system to identify reliable players.

## **Web App Development**

I had to develop a complete web application for a course exam. The course gave us the freedom to develop every idea that we thought could be useful. My web app was called “Fill The Gap” and consisted of a real-time map of the city in which every user could identify possible architectural barriers for people with disabilities.