

Andrea Mazzei

BIO	Born in Rome, IT. on Apr 23, 1988.	
CONTACT INFORMATION	Via Passo del furlo 19 Roma, 00141	3201198787 andrea.mazzei@infn.it
RESEARCH INTERESTS	Statistical Mechanics, Complex systems, Lattice models, probability and statistics, Scientific computation	
COMPETENCES AND SKILLS (IN BRIEF)	<ul style="list-style-type: none">• High level mathematical background: analytical and numerical analysis, probability and statistics, field theory, geometry.• High level theoretical physics background: Lattice models, complex systems, neural networks and neural networks modeling, pattern recognition,• Programming languages: C,C++ developer, Qt graphical user interface development, Dynamical modeling, Arduino programming and hardware construction. Python developer, both for industrial, scientific and videogame programming, Pygame developer Advanced MATLAB developer, [...]. Intermediate level of Java, Python, and xml markup, shell and bash scripting.• Good understanding of electronics and circuitry, capable of doing solders and configure PCB.	
EDUCATION	Università la Sapienza, Roma Ph.D., Physics, Spring 2018 <ul style="list-style-type: none">• Thesis Topic: <i>Beyond mean field model in Bethe lattice spin glass</i>• Advisor: Prof. em.to Parisi Giorgio M.S., Theoretical physics, Jan 2015 <ul style="list-style-type: none">• Topic: <i>A two step RSB algorithm for Bethe lattice</i>• Advisor: Prof. em.to Parisi Giorgio• <i>Summa Cum Laude</i> B.S., Physics , Nov 2012 <ul style="list-style-type: none">• Topic: <i>Absolute negative temperatures</i>• Advisor: Prof. ass.to Caprara Sergio• 102 out of 110	
WORKING EXPERIENCES	Contract of collaboration <ul style="list-style-type: none">• UAV-AL - A series of functions for the development of an human-independent photographic drone. Neat S.r.l, Contract consisted in the mathematical modeling of the problem of finding the best route for a human-independent photographic drone, according to a series of constraint given by the user, such as a correct line of sight with the photographed object and/or with the radio station, the minimization of fuel consumption and others.	Apr 2009 to Apr 2010

Contract of collaboration

Apr 2010 to Apr 2011

- SeparA - tool for assisted civil air navigation.
Arakne S.r.l,

Contract consisted in the development of a series of visual assistants for civil and entertainment air navigation. Main goal of SeparA is to re-plan in real-time the routes of its' users, in order to have a smooth fly experience with no risk of incidents at all. This has been achieved with the knowledge gathered in the preceeding collaboration with Neat S.r.l.

Commission

Mar 2018 to present

- Escape room riddles
Cogito ergo Room S.r.l,

Concept, design and developement of arduino-powered escape room riddles. These include 1) a fully functioning radio riddle with audio drivers embedded into the board. 2) a remote controlled oouija board. powered by a 3d printer board and coming with a custom driver for the game master, developed in python. 3) all the minor riddles, developed in arduino

Full time

Feb 2018 to Dec 2020

- Full time developer
Neat S.r.l,

Job consisted in working process automation. I have developed several tools to automatically generate documentations and unit tests for high-safety products. I have also contributed in developing SIL4 systems for the railway industry

LANGUAGES

- Mother Tongue Italian.
- Advanced English production and comprehension. Capable of understanding advanced scientific topics in English. Fluent english speaker and writer.
- Base-level french speaker. Base-level french comprehension.

HOBBIES

Game theory and mathematics of games. Chess, go, card games, Backgammon. Bot development for game strategy solving.

Dota2.

Music. Plays piano.

Enjoys playing soccer with friends and skiing.

