

Andrea Mazzei

BIO	Born in Rome, IT. on Apr 23, 1988.
CONTACT INFORMATION	Via Passo del furlo 19, Roma 3201198787, andreamazzei88@gmail.com
RESEARCH INTERESTS	Statistical Mechanics, Complex systems, Lattice models, probability and statistics, Scientific computation, Optimization.
COMPETENCES AND SKILLS (IN BRIEF)	<ul style="list-style-type: none">• High level mathematical background: probability and statistics, field theory, geometry, numerical analysis, nonlinear and global optimization.• High level theoretical physics background: Lattice models, complex systems, neural networks and neural networks modeling, pattern recognition and dynamical system modeling.• Programming languages: C,C++ developer, Qt graphical user interface developer, Python developer, both for industrial, scientific and videogame programming. MATLAB developer for scientific purposes. Intermediate level of Java, html and xml markup.• Good understanding of electronics and circuitry, PCB design, configuration and soldering.
EDUCATION	<p>Università la Sapienza, Roma</p> <p>M.S., Theoretical physics, Jan 2015</p> <ul style="list-style-type: none">• Topic: <i>A two step RSB algorithm for Bethe lattice spin glasses</i>• Advisor: Prof. em.to Parisi Giorgio• <i>Summa Cum Laude</i>, 110 out of 110 with honors <p>B.S., Physics , Nov 2012</p> <ul style="list-style-type: none">• Topic: <i>Absolute negative temperatures</i>• Advisor: Prof. ass.to Caprara Sergio• 102 out of 110
WORKING EXPERIENCES	<p>Contract of collaboration Apr 2009 to Apr 2010</p> <ul style="list-style-type: none">• UAV-AL - A kit of functions for the development of an human-independent photographic drone. Neat S.r.l, <p>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.</p>

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.

Full time

Feb 2018 to Dec 2020

- Full time developer
Neat S.r.l,

Working process automation. Development of several tools to automatically generate documentations and unit tests for high-safety products, developed in Python3. Custom gdb/pdb automated debugger for embedded SIL4 products, developed in Python3.

Commissions

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:

A fully functioning vintage radio riddle with custom audio drivers embedded into the board.

A remote controlled ouija board. powered by a 3D printer board and coming with a custom driver for the game master, developed in Python3.

All the minor riddles requested by the commissioner, developed in Arduino.

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.

Juggling.

Videogame development.

Music, Plays piano.

Enjoys playing soccer with friends and skiing.

