

## PERSONAL INFORMATION



## Matteo Madeddu

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Sex Male | Date of birth 25/09/1991 | Nationality italian

POSITION  
PREFERRED JOB  
STUDIES APPLIED FOR  
PERSONAL STATEMENT

I am a Computer Science enthusiast with a strong propensity to interdisciplinarity. I obtained a bachelor and master degree in Computer Science with a specialization in Artificial Intelligence. I have a deep knowledge of Python, MATLAB, Javascript, PHP, Java, Oracle, MongoDB. I'm a Linux fan, Mac OS lover, Trello addicted, Python geek, dreamer, juggler, skater, skier, guitarist.

WORK  
EXPERIENCE

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- (02/2017 - 09/2017) **Manufacturing and Brilliant Factory Internship – GE Aviation (AvioAero), Rivalta**  
The aim of the Internship experience will be to support the IT team on the launch and coordination of initiatives to seamlessly implement and integrate global Digital manufacturing systems in Avio Aero. Support the IT Manager on the coordination and implementation of GE Integration & Digital Strategy, Platforms (Predix.io) & Analytics, focusing mainly on Brilliant Factory. Involved techs: Predix Platform (mainly edge management, industrial protocols and cloud foundry micro services), Java, Python.  
**Business or sector** research / software engineering / pm
- (10/2016 - 12/2016) **Software Engineer – List s.p.a., Torino**  
Maintenance and development of software architectures related to the financial field. Involved techs: Spring, Java, several front-end web frameworks, Python, Oracle.  
**Business or sector** software engineering
- (04/2016 - 09/2016) **Research Fellowship – University of Torino**  
Mimosa (Multimodal Ontology-driven Query System for The Heterogeneous Data of a Smart City), a study of temporal evolution and structural properties of communities in complex social networks. Involved techs: Java, Python, MATLAB.  
**Business or sector** research
- (04/2016 - 09/2016) **MATLAB Research Developer – University of Torino**  
Study and development of a visual auditory model realized through neural networks, to explain the formation of the taxonomic response and the fast-mapping abilities of children in early childhood. Involved techs: MATLAB.  
**Business or sector** research
- (04/2013 - 04/2015) **Librarian – University of Torino**  
Tasks related to maintenance and ordinary and extraordinary management of properties available at the library of the Department of Computer Science, Turin.  
**Business or sector** office work - cultural assets management and organization
- (04/2013 - 04/2014) **Symfony developer – University of Torino**  
Design and development of a web application according to the specifications of a research project of the ARCS group for the creation of a recommendation system that uses gamification techniques in order to solve cold start by completion of the user profile. Involved techs: Symfony (PHP framework), Git, front-end Javascript / CSS libraries and tools.  
**Business or sector** software development
- (04/2013 - 06/2013) **Python developer – Bitonda S.p.A, Torino**  
The work consisted in contributing at the creation of a module for serial communication between two devices written in Python and a secure web communication module with a reference server. The development involved the creation of different applications. Involved techs: Python.  
**Business or sector** software development

## EDUCATION AND TRAINING

(2013 - 2015)

### Master's Degree in Computer Science

Vote 110/110  
with honors and distinction

University of Torino, Department of Computer Science  
Address: Systems for information processing and Artificial Intelligence

Supervisor: Valentina Gliozzi

Thesis: The work involved the analysis and in-depth study of an auditory visual model to explain the formation of the taxonomic response and the fast-mapping abilities of children in early childhood. Some preliminary tests lead us to believe that the model is able to automatically adapt to the training set which is subjected, leading to strong performance advantages in the presence of a form of incremental training, most likely the type of "training" which is subject a child in the first twenty-four months of life.

I won the AI\*IA special mention for the best Italian Thesis in Artificial Intelligence for the year 2016.

(2010 - 2013)

### Bachelor's Degree in Computer Science

Vote  
108/110

University of Torino, Department of Computer Science  
Address: Networks and computer systems

Supervisors: Giancarlo Ruffo, Martina Deplano

Thesis: MovieGWAP is a social network. I designed and developed a prototype of the platform as final project to obtain my bachelor degree. The platform creates the basis for a recommendation system that uses gamification techniques for solving some common problems in this type of system: cold start and completion of the user profile.

(2005 - 2010)

### Scientific Diploma - High School

Vote  
80/100

Niccolò Copernico High School, Spec. PNI  
Main subjects: Mathematics, Physics, Latin, Philosophy

(2008)

General Intensive Course (English) – University of Guelph, Toronto, Canada

(2007)

General Intensive Course (English) – Aspect College, Oxford, England

(2006)

General Intensive Course (English) – Isca School of English, Exeter, England

## PERSONAL SKILLS

Mother tongue

Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	B1	B1	B2
PET					

Organisational / managerial skills

The numerous team projects and the simple, albeit significant, accumulated work experience allowed me to develop a strong sense of duty and division of tasks. These capabilities, especially during the master degree course, allowed me to get the results I wanted in the timeframe I was willing.

Digital competence

I have gained a good grasp of the following technologies and programming languages:

- Python - Where: mainly personal projects. When: from 2012.
- Java - Where: main courses (Programming I- II - III , Algorithms). When: from 2010.
- MATLAB - Where: mainly master's degree thesis. When: during my master's thesis.
- PHP and Web technologies - Where: courses and personal projects. When: from 2010.

Driving licence

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## ADDITIONAL INFORMATION

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|--------------------|--|
| Seminars           | <ul style="list-style-type: none"> <li>▪ <u>Symfony</u>: seminar personally led on the PHP framework with deepening on the template engine (focus on Twig) and ORM (focus on Doctrine), during a lesson of the course "Web Technologies" of Professor Ruffo in the Department of Computer Science of Turin.</li> <li>▪ <u>Bootstrap 3.0</u>: seminar personally led on the front end CSS framework of Twitter, during a lesson of the course "Web Technologies" of Professor Ruffo in the Department of Computer Science of Turin.</li> </ul>  |
| Projects           | <p>Following a list of some of the noteworthy projects I've worked on (alone and, where specified, in collaboration with other colleagues) during the course of the five years of study:</p> <ul style="list-style-type: none"> <li>▪ <u>Growing SOM Visual Auditory model</u>: neurocomputational model that simulates the learning of language in early childhood through the use of two Growing SOM, for the simulation of the visual and auditory cortex, and Hebbian training for the phase of learning by association. Technologies used: MATLAB.</li> <li>▪ <u>MovieGWAP</u>: project for an Bachelor thesis, realized as a web app with gamification elements to solve the cold-start problems of a recommendation system. Technologies used: Symfony, Twig, Doctrine.</li> <li>▪ <u>MobNews</u>: project carried out between students on mobility and public transport in Turin (iOS app), for personal use (public). Technologies used: pure PHP and web crawling through ad hoc libraries and OO programming.</li> <li>▪ <u>NGCaf </u>: expert system written in CLIPS language that implements a waiter capable of handling concurrent goals (different orders from different tables) in dynamic environment with people moving, using several strategies based on metrics (penalty reduction, average waiting time reduction, etc).</li> <li>▪ <u>Coppeliaperladanza</u>: web presentation site, realized for the sports association Coppelia A.s.d. which operates in Piossasco and Carmagnola.</li> <li>▪ <u>Trello2Google</u>: Python application for synchronizing the card and individual tasks deadlines of Trello board on Google Calendar, developed in collaboration with Valentina Rho for personal use (public). Technologies used: Python.</li> <li>▪ <u>Wikiseries</u>: PHP based social network with the basic functions of exchanging messages and sharing of states in "TV shows" context, realized for the course Web Technologies.</li> <li>▪ <u>GuidaTV</u>: project carried out by use of Raspberry PI for the EPG visualization of national and international broadcasters and search for trailer of the transmitted content. Technologies used: Flask, a Python micro-framework for creating scalable web apps on a single file, mongoengine, Object Data Mapper written in Python for MongoDB and Supervisor, monitoring tool on UNIX-like systems processes.</li> <li>▪ <u>Pebble GuidaTV</u>: spin-off of the project GuidaTV for the Pebble Time smart watch, made for personal purposes (public). Technologies used: PHP + Javascript.</li> <li>▪ <u>Gym</u>: project for the management of gym workouts, designed for personal use (public). Technologies used: Silex, micro-framework PHP derived from Symfony, Propel, and ORM based on XmlSchema Materialize, CSS framework for "Material" design (Google).</li> <li>▪ <u>AllenGame</u>: mini game that uses the Allen algebra operators to create puzzles based on time intervals, age, degree of kinship. Technologies used: Python.</li> <li>▪ <u>ControlCenter</u>: Control application of a web-home server, with versioning and management of the code and able to remotely mount physical device, made for personal use. Technologies used: Bash, Awk, (later) AppleScript.</li> <li>▪ <u>SpotiSpy</u>: modular application for the analysis of various types of networks by analyzing the shares of the users of Twitter and Spotify, created in collaboration with Valentina Rho for the course of Complex Networks. Technologies used in back-end: Python and PHP. In front-end: HTML, Bootstrap CSS, jQuery.</li> <li>▪ <u>Hit &amp; Eat</u>: web application designed to create a portal to social exchange of food and home-made products, in a context of "house &amp; food" sharing, created in collaboration with Enrico Mensa and Davide Dell'Anna, for the course Development of Software Components and Web Services. Technologies used: Java EE environment, with strong use of template engine and technologies related to the enterprise world such as Hibernate, DerbyDB, JDBC.</li> <li>▪ <u>FluidLearn</u>: project aimed at creating an online portal similar to Moodle, with functions related to e-learning world, carried out in collaboration with Enrico Mensa for the course of Software Applications Development. Technologies used: PHP. In front-end: HTML, Bootstrap, jQuery.</li> </ul> |
| Other IT interests | <ul style="list-style-type: none"> <li>▪ <u>Products</u>: Apple, Pebble, Raspberry PI, Synology, Arduino.</li> <li>▪ <u>Services</u>: GCalendar, Gmail, Github, Bitbucket, Trello, Mongolab, IFTTT, Agilefant, Netflix, Spotify.</li> <li>▪ <u>Software</u>: zshell, PhpStorm, PyCharm, Vagrant, Composer, Dropbox, OmniGraffle, Photoshop, Illustrator, InDesign, MATLAB, Erato, Latex, Numbers, Keynote, Airmail, Git, Sublime Text.</li> <li>▪ <u>Theory</u>: neural networks, experimental psychology, AI, machine learning, RS, linux-dist, shell tools.</li> </ul>   |
| Places I visited   | <ul style="list-style-type: none"> <li>▪ Lisbon, Prague, London, Madrid, Oxford, Barcelona, Toronto, Toledo, Exeter, Valencia, Ottawa.</li> </ul>  |