PERSONAL INFORMATION

Matteo Madeddu

Corso Unione Sovietica, 342, 10135, Torino, Italia

+39 3480322110

matteo.madeddu@gmail.com

Skype made2591

https://made2591.github.io

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 Mac OS lover, Docker fan, Python geek, Go explorer, Trello addicted, a dreamer, a juggler, a skater, a skier, a guitarist (sometimes).

WORK EXPERIENCE

(02/2017 - 09/2017)

Manufacturing and Brilliant Factory Internship – GE Aviation (AvioAero), Rivalta

The aim of the Internship experience will be to work with the IT Team on the coordination and implementation of GE Integration & Digital Strategy, both Platforms (Predix.io) and Analytics, focusing mainly on Brilliant Factory. Involved techs: Predix Platform, Cloud Foundry, 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 Engineer – 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 software engineer – 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 engineering

(04/2013 - 06/2013)

Python software engineer – 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 engineering

EDUCATION AND TRAINING

(2013 - 2015) **Master's Degree in Computer Science** — Vote 110/110 summa cum laude 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.

(Previously)

- Scientific High School Diploma
- General Intensive Course (English) - University of Guelf, Toronto, Canada
- General Intensive Course (English) - Aspect College, Oxford, England
- 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:

- Golang – Where: work and personal projects. When: from 2017.
- 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: B

ADDITIONAL INFORMATION

Seminars

- Symfony: 2013 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.
- Bootstrap 3.0: 2014 [https://goo.gl/CSEpSF] (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.

Projects

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:

- Growing SOM Visual Auditory model: 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. [https://made2591.github.io/matteo_madeddu_master_thesis.pdf]
- Go-perceptron-go: A parametric multi layer perceptron classifier with weights estimated using stochastic gradient descent. Recently added: back propagation on multi layer perceptron network. Technologies used: Golang. [https://github.com/made2591/go-perceptron-go]
- MovieGWAP: 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.
- Gym: 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). [https://github.com/made2591/gym-workout]
- Google-task-gtd: GoogleTask is a python utility to generate schedules based on a JSON dictionary with typical activities, in accordance with the commitments already taken during the day. Technologies used: Python. [https://github.com/made2591/google-task-gtd]
- Coppeliaperladanza: web presentation site, realized for the sports association Coppelia a.s.d. [http://coppeliaperladanza.it]
- MobNews: 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.
- Trello2Google: 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. [https://github.com/made2591/trello2google]
- NGCafè: 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 (penality reduction, average waiting time reduction, etc).
- Wikiseries: 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.
- SpotiSpy: 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. [https://github.com/made2591/spotispy-framework]
- GuidaTV: 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.
- Pebble GuidaTV: spin-off of the project GuidaTV for the Pebble Time smart watch, made for personal purposes (public). Technologies used: PHP + Javascript.
- AllenGame: mini game that uses the Allen algebra operators to create puzzles based on time intervals, age, degree of kinship. Technologies used: Python. [https://github.com/made2591/allen-py-game]
- ControlCenter: 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.
- Hit & Eat: web application designed to create a portal to social exchange of food and home-made products, in a context of "house & 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.
- FluidLearn: 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.

Other IT interests

- Products: Apple, Pebble, Raspberry PI, Synology, Arduino.
- Services: Github, Netflix, Spotify, Gmail, GCalendar, Bitbucket, Trello, Mongolab, IFTTT, Agilefant.
- Software: zshell, PhpStorm, PyCharm, Git, Sublime Text, Docker, Vagrant, Composer, Dropbox, OmniGraffle, Photoshop, Illustrator, InDesign, MATLAB, Erato, Latex, Numbers, Keynote, Airmail.
- Theory: neural networks, AI, machine learning, experimental psychology.