

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. Languages: Go, Python, Java, TS/JS, PHP. Storage: SQL-like, MongoDB. Golang dev, Mac OS lover, Docker fan, Python geek, Trello addicted, juggler, skier, skater, guitarist (sometimes), dreamer.

WORK EXPERIENCE

(09/2017 - Actual)

Digital Platform Specialist – GE Aviation (AvioAero), Rivalta

Main: Golang api dev for digital twin (goa.design for micro service, mux for rest, logrus for log, DynamoDB to historicise. In future ecs / Docker over kube to orchestrate, hilbert (golang) for high-dimensional space reduction). Angular 4 & co for front-end. Working on: Predix platform support to Brilliant Factory team (Digital Exchange GE internal store commiter). IT support to: business process migration to AWS platform (lambda). Massive tasks (finance) setup through use of Python, Hadoop and Spark. Replica system (HVR) for legacy platform. Involved techs: Golang, Angular 4, Python.

Business or sector software engineering – pm

(02/2017 - 09/2017)

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

I worked 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, Python, Java.

Business or sector 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

I worked with the University data research group and CRIT to study temporal evolution and structural properties of communities in complex networks. Involved techs: Java, Python, MATLAB.

Business or sector research

(04/2013 - 04/2015)

Librarian – University of Torino

Maintenance and extraordinary management of library of the Department of Computer Science, Turin.

Business or sector office work - cultural assets management and organization

(04/2013 - 06/2013)

Python Software Engineer – Bitonda S.p.A, Torino

I worked as a supporter to creation of Python and 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

Specialization: Systems for information processing and Artificial Intelligence

Thesis: 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.

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
Specialization: Networks and computer systems

Thesis: 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.

(Previously)

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

PERSONAL SKILLS

Mother tongue
Other language(s)

Italian

| UNDERSTANDING | | SPEAKING | | WRITING |
|---------------|---------|--------------------|-------------------|---------|
| Listening | Reading | Spoken interaction | Spoken production | |
| 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's 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, Javascript and Web technologies - Where: courses and personal projects. When: from 2010.
- DB: SQL-like, MongoDB. Where and when: support to most of my projects.

Driving licence

B

ADDITIONAL INFORMATION

Seminars

- Symfony: 2013 seminar personally led on the Symfony PHP framework, in particular on the template engine (focus on Twig) and ORM (focus on Doctrine), for the "Web Technologies" course in the Department of Computer Science of Turin.
- Bootstrap 3.0: 2014 [<https://goo.gl/CSEpSF>] (seminar personally led on the Twitter's front end CSS framework, during the "Web Technologies" course in the Department of Computer Science of Turin.

Projects

Following a list of some of the projects I've worked on (alone and, where specified, in collaboration with other colleagues) with link to respective Github repo, when available.

Machine Intelligence

- 2017 ~ [Go-perceptron-go](https://goo.gl/ZaipTe) ~ <https://goo.gl/ZaipTe> ~ a parametric multi-layer perceptron classifier with weights estimated using stochastic gradient descent (back propagation) ~ Golang.
- 2016 ~ [Growing SOM Visual Auditory Model](https://goo.gl/MxY3kS) ~ <https://goo.gl/MxY3kS> ~ neuro computational model that simulates the learning of language in early childhood through the use of two Growing SOM (visual / auditory cortexes) and Hebbian training for the phase of learning by association ~ MATLAB.
- 2015 ~ [Google-task-gtd](https://goo.gl/HavUjA) ~ <https://goo.gl/HavUjA> ~ Python utility to generate daily activity schedules based on a set of configurable typical activities, in accordance with the commitments already taken during the day ~ Python
- 2014 ~ [NGCafè](https://goo.gl/MV5pdi) ~ 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 different heuristics (e.g. penalty reduction, average waiting time reduction) ~ CLIPS, Java
- 2014 ~ [SpotiSpy](https://goo.gl/MV5pdi) ~ <https://goo.gl/MV5pdi> ~ modular application to show the analysis of various types

of complex networks created from the Spotify shares of Twitter users. ~ team: me, Valentina Rho
~ be: Python and PHP; fe: HTML, Bootstrap CSS, jQuery.

Utilities

- 2017 ~ Predix Configurator ~ <https://goo.gl/5gPXKF> ~ a Predix© configurator tool (cli) and web app to help the management of the Edge Connectivity stack, from machines in the factory to Predix micro-services in the cloud space ~ AngularJS 4 and Python.
- 2016 ~ Gym ~ <https://goo.gl/Q6mwNp> ~ project for the management of gym workouts, designed for personal use ~ Silex, PHP micro-framework derived from Symfony, Propel, Materialize.
- 2015 ~ Pebble GuidaTV: spin-off of the project GuidaTV for the Pebble Time smart watch, made for personal purposes ~ PHP and Javascript.
- 2014 ~ GuidaTV ~ Python 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 ~ Flask, mongoengine and Supervisor.
- 2013 ~ Trello2Google ~ <https://goo.gl/FSFWDI> ~ Python application for synchronizing cards and individual tasks deadlines of Trello boards on Google Calendar ~ team: me, Valentina Rho ~ Python.
- 2012 ~ ControlCenter ~ control application of a web-home server, with versioning and code management, able to remotely mount physical device, made for personal use ~ Bash, Awk, (later) AppleScript.

Web Applications

- 2015 ~ 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 for the course Development of Software Components and Web Services ~ team: me, Enrico Mensa, Davide Dell'Anna ~ Java EE, Hibernate, Thymeleaf, DerbyDB, JDBC.
- 2013 ~ FluidLearn ~ project aimed at creating an online portal similar to Moodle, with functions related to e-learning world, carried out for the course of Software Applications Development ~ team: me, Enrico Mensa ~ be: PHP; fe: HTML, Bootstrap, jQuery.
- 2013 ~ Wikiseries ~ Simple social network with the basic functions of messages exchange and states sharing in "TV shows" context, realized for the course Web Technologies ~ PHP, jQuery.
- 2013 ~ MovieGWAP ~ Bachelor thesis project, realized as a web app with gamification elements to solve the cold-start problems of a recommendation system ~ Symfony, Twig, Doctrine.

Games & Website

- 2014 ~ AllenGame ~ <https://goo.gl/Gkwe3e> ~ mini game that uses the Allen algebra operators to create puzzles based on time intervals, age, degree of kinship ~ Python
- 2014 ~ Coppeliaperladanza ~ <http://coppeliaperladanza.it> ~ web presentation site, realized for the sports association Coppelia a.s.d. ~ HTML5, jQuery

Other IT interests

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