MATTEO MADEDDU

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Platform Engineer I am a platform engineer with a bachelor and a master degree in computer science - focused on artificial intelligence. I'm a **AWS Certified Solution Architect** and **AWS Certified Machine Learning Specialist**. I love **Golang**, **Docker**, serverless architecture and **quantum** computing / mechanics. In my free time, I'm a software developer (@made2591), a **blogger** (https://madeddu.xyz/posts/), a **juggler**, a skier, a skater, a guitarist (sometimes) and a dreamer (always). I **always looking for something to learn**, for a team of passionate people to work with, a mentor to guide us, in a company that wants to make the difference.

WORK EXPERIENCES

adidas
Herzogenaurach, Germany
Jun 2018 - Now

Platform Engineer
Create a new AWS new data-platform, deal with infrastructure and application migration. Working on: **image recognition at scale**. Involved techs: **AWS (ECS, Lambda, Step Functions), Docker**, Python, Javascript, Golang.

GE Aviation
Torino, Italy
Feb 2017 - Jun 2018

Internship / Platform Engineer
Leverage AWS services for **development of new application (web based)** and systems integration / migration. Worked also on: **Predix** platform for Brilliant Factory (**internal commiter of GE Digital Store**), distributed systems workload. Involved techs: **AWS, Golang, Vue.js**, Python, Sqoop.

List s.p.a
Torino, Italy
Sep 2016 - Dec 2016

Software Engineer
Maintenance and development of software architectures for banks and insurance companies. Involved techs: Spring, **Java**, several front-end web frameworks, Python, Oracle.

University of Torino
Torino, Italy
Apr 2016 - Sep 2016

Research Fellowship
I worked with the University data research group and CRIT to **study the temporal evolution and structural properties** of communities in complex networks. I also developed part of the model theorized. Involved techs: **Java, MATLAB**, Python.

EDUCATION

University of Torino, Italy
Department of Computer Science.
Final Vote: **110/110 summa cum laude and distinction**
2013 - 2015

Master's Degree in Artificial Intelligence and Software Engineering
My thesis consists in the study and the 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. An article extracted from this work was **published in the Journal of Cognitive System Research in 2018**.

University of Torino, Italy
Department of Computer Science.
Final Vote: **108/110**
2010 - 2013

Bachelor's Degree in Networks and computer systems
My thesis consists in the design and the **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.

CERTIFICATIONS

AWS Certified Solutions Architect - Associate
Released in date: March 25th, 2019. ID TODO. Follow the link: **TODO**

AWS Certified Machine Learning - Specialty
Released in date: December 20th, 2018. ID AWS00711861. Follow the link: **https://goo.gl/yLwQUA**

PUBLICATIONS & SEMINARS

Journal of Cognitive System Research: 2018
*A visual auditory model based on **Growing Self-Organizing Maps** to analyze the taxonomic response in early childhood* was published by Cognitive System Research. The article is available: **https://goo.gl/sFPTGm**.

Bootstrap 3.0: 2014
Seminar personally led on the **Twitter's front-end CSS framework**, during the "Web Technologies" course held by Prof. Giancarlo Ruffo in the Department of Computer Science of Turin. The slides are available: **https://goo.gl/CSEpSF**.

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 held by Prof. Giancarlo Ruffo in the Department of Computer Science of Turin.

I'M PROUD OF

Quantum Computing Notes

From time to time, I like studying and reading about quantum world. After reading some books, a few time ago I **started to collect some quantum-notes**: in this document I write my personal notes about **IBM Q platform**, but most of all the quantum-computing world in general. I was also invited in **Verona** by a quantum research group to talk about the platform. A **researcher post doc** from the **University of Engineering, Buenos Aires** - manifested interested in the **openQASM quantum teleportation code** I wrote to study quantum teleportation. I'm trying to bring this work ahead every time I can! I use to provide a (not super updated) pre-compiled version of this document at this link: **https://goo.gl/aUSrpz**.

go-perceptron-go

This is **my most starred Github repository**: it's a parametric **multi-layer perceptron classifier** with weights estimated using **stochastic gradient descent** written in **Golang**. It also provides **parametric network topology** - only one array of integers - and **validation package** with **k-fold cross validation**. The repository was originally intented for perceptron only, but then I introduced also another **Recurrent Neural Network (Elman Network)** with "learn to sum integer" task. This repository was linked as **top ranked topic on Hacker News** for a couple of days and **shared on its Facebook** page! The link to the repo: **https://goo.gl/qV7fmL**.

immutable

immutable represents my best implementation of an completly **immutable**, **opinionated** and **DRY-driven repository**. In few words, the idea behind immutable is to provide **one-command deployable repository** that contains everything needed to deploy itself: above the infrastructure, which is provisioned by **terragrunt** and **terraform**, one or more actor(s) is placed (i.e. Jenkins, but I planning to move to serverless), the actors will be redeployed, the **pipelines restored** and they will start **redeploy applications** - even pieces of infrastructure with dependencies on their behalf to the various parts of the infrastructure. I also **wrote an article** in my blog about it: (**https://goo.gl/4dqqkZ**). The link to the repo: **https://goo.gl/p7inY3**.

Coppeliaperladanza

This is a **simple static website** realized for the sports association Coppelia a.s.d. Even if this is nothing special from a technology perspective, it **was a Christmas present for my sister** (the president and dancing teacher of Coppelia). I think I'm more proud of her work and students... but the site is good too! If you have a moment, have a look :-): **https://goo.gl/gu9Qhp**.

My Github page

Some other works I collected over the years and I shared on my Github page: **https://goo.gl/Yaya9z**.

INTERESTS

Golang, Docker, orchestration, networking, quantum computing, vintage, 80s-computer sciences, Apple, Linux. And yes travels, of course.