# **MATTEO** MADEDDU

<u>Platform Engineer</u> 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 - you can find me on Github at <u>@made2591</u>, a **blogger** at <u>https://madeddu.xyz/</u>, a juggler, a skier, a skater, a guitarist (sometimes) and a dreamer (always). I'm 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**



Herzogenaurach, Germany Jun 2018 - Now

# **Platform Engineer**

Build the new AWS-based platform for data a/e/s, dealing with infrastructure design and application migration/development. Worked on: image recognition at scale. Techs: ECS, Lambda, Step Functions, Docker, Terraform, Python, Javascript, Golang.



# **GE Aviation**

Torino, Italy Feb 2017 - Jun 2018

# Internship / Platform Engineer

Leverage AWS services, design and develop applications - web based - and systems integration / migration. Worked also on: Predix as internal commiter of GE Digital Store, scheduling of distributed systems workload running on-premise. Techs: Golang, Vue.js, Python, Sqoop.



# List s.p.a Torino, Italy

Sep 2016 - Dec 2016

**Software Engineer** 

Maintenance and development of software - web based - for banks and insurance companies. Techs: Spring, Java, several front-end web frameworks, Python, Oracle.



#### **University of Torino**

Torino, Italy

Apr 2016 - Sep 2016

#### Research Fellowship

Collaboration with the University data-oriented research group and CRIT to study the temporal evolution and structural properties of communities in complex networks. Worked also on: development of part of a probabilistic model. Techs: Java, MATLAB, Python.

### **CERTIFICATIONS**



#### **AWS Certified Solutions Architect - Associate**

Released in date: March 25th, 2019. ID AWS00711861. Follow the link: https://goo.gl/PA7Evc



# **AWS Certified Machine Learning - Specialty**

Released in date: December 20th, 2018. ID AWS00711861. Follow the link: https://goo.gl/yLwQUA

#### **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 the cold start problem. Involved techs: **Symfony (PHP framework)**, Git, front-end Javascript / CSS libraries and tools.

#### **PUBLICATIONS & SEMINARS**

#### **Journal of Cognitive Systems 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 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 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 the 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** and the quantum-computing world in general. I received very good feedback regarding this work and I was invited to talk about the IBM Platform in the University of Verona. I usually 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 created for the perceptron only, then I also introduced a recurrent neural network model. This repository was linked as **top ranked on Hacker News** for a couple of days and **shared on HN social** official pages! The link to the repo: <a href="https://goo.gl/qV7fmL">https://goo.gl/qV7fmL</a>.

#### immutable

immutable aims to be - it's still becoming - my best implementation of a completely 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**, there are some actors (Jenkins, but I'm planning to move to serverless) coded to be redeployed and start the redeployment of the applications - in the future, even pieces of 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 **static website** realized for the sports association Coppelia a.s.d. I designed, created and I actively mantain the website: this is nothing special from a technological perspective, but it still helped my sister to gain some new students in her ballet school! You can have a look: https://goo.gl/gu9Qhp.

#### My Github page

Some other projects I collected over the years: https://goo.gl/Yaya9z.

#### **INTERESTS**

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