# **Daniele Grattarola**

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## danielegrattarola.github.io

### **EDUCATION**

#### Università della Svizzera Italiana - Doctorate

Since Nov, 2017

**Machine Learning**, with focus on deep learning and reinforcement learning for change detection, diagnostics, and control of dynamic systems in non-euclidean spaces like graphs and manifolds.

### Politecnico di Milano - Master's Degree (110/110 cum laude)

2015 - 2017

Computer Science and Engineering, with focus on AI, machine learning, and recommender systems.

Relevant coursework: Machine Learning, Artificial Intelligence, Game Theory, Recommender Systems, Natural Language Processing, Knowledge Engineering, Software Engineering.

# Politecnico di Milano - Bachelor's Degree (99/110)

2012 - 2015

**Computer Science and Engineering** 

## **EXPERIENCE & PROJECTS**

## Open source <u>github.com/danielegrattarola</u>

Ongoing

Published several personal projects in deep learning and reinforcement learning. Some of the repositories have been integrated by third parties in business and academic contexts.

Master's Thesis Politecnico di Milano Nov, 2016 – Oct, 2017

Developed a novel algorithm for sample-efficient deep reinforcement learning, under the supervision of Prof. Restelli. The approach performed competitively with state-of-the-art methods on the Atari environments.

Keywords: deep learning, reinforcement learning, Python, Keras, TensorFlow, Scikit-learn.

## Best academic team

### **ACM Recsys Challenge 2017**

Spring, 2017

Tackled a *cold-start* job recommendation scenario for Xing.com, as part of a 9-person team from Politecnico di Milano. We qualified as best academic team (second best overall), and published our methodology in the Recsys proceedings.

DOI: 10.1145/3124791.3124793

Keywords: recommender systems, machine learning, Python, Numpy, team, competition.

# Third best team

# Cisco DevNet Paris Hackathon

Apr. 2016

Developed *Gaia*, an Android app to raise environmental awareness based on the *iBeacon* technology, during a 48-hour hackathon in Paris. Our team of four master students was invited to participate after winning the *Techradar for Innovation* award at the 2015 *Cisco DevNet Live! Hackathon* in Milan.

Keywords: IoT, Android, Java, environment, team.

# Android developer Freelance Winter, 2015

Developed and published <u>Thought – Local forum</u>, an Android communication app based on Google's Nearby API. The app can be used to share content to nearby users, working as a forum for local public discussion.

Keywords: Android, Java, social.

# **TECHNICAL SKILLS**

**Programming** Python, Java, C

Web HTML5, JavaScript, Jekyll OS Linux, Windows, MacOS

Software PyCharm, Android Studio, git, Photoshop, MATLAB, Latex Other TensorFlow, Keras, Numpy, Scikit-learn, Pandas

### **LANGUAGES**

**Italian** Native speaker

**English** C1 (Cambridge English: Advanced – CAE)

**Spanish** Elementary proficiency