## Marco De Nadai

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INFORMATION Website: http://www.marcodena.it

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GitHub: https://github.com/denadai2

ACTUAL Ph.D. Student in Data Science

Position Fondazione Bruno Kessler - Università degli Studi di Trento, Italy

Cities' and people's behavioral study from mobile phone data and credit card transactions.

Advisors: Dr. Bruno Lepri and Prof. Nicu Sebe

EDUCATION Master's degree in Computer science, 110L/110, summa cum laude 2015

Università degli Studi di Trento, Italy

Exchange Master's Student 2014

Vrije Universiteit Amsterdam, The Netherlands

Bachelor's degree in Computer science, 100/110 2012

Università degli Studi di Udine, Italy

Professional Data scientist 2015

Experience Fondazione Bruno Kessler, Italy

Research assistant on city science from mobile phone data.

Data Scientist Intern 2014 – 2015

Telecom Italia, Italy

Responsible of the project to find activity *hotspots* and associates socio-economic indexes such as GDP, wages, employment and epidemics, to the population's (mobile) activeness.

Machine Learning Intern

University of Amsterdam, The Netherlands

Intern on a project about detecting anomalies in the gas consumption of around 20 buildings of Amsterdam. The project involved the construction of an Artificial Neural Network able to predict energy consumption.

iOS developer 2013

Ulook, Italy

iOS and API developer for Ulook, a fashion mobile application. I developed the app, proposed and applied a new design for a better user experience and optimized it for iOS 7.

## Lead web developer and Software Engineer

2008 - 2012

2014

MCZ GROUP S.p.A., Italy

PHP Zend Framework developer with knowledge in IBM AS/400 programming. Front-end developer experienced in A/B testing and marketing strategies. Developer of geo-marketing solutions aimed to map turnovers of MCZ GROUP's clients.

**Publications** 

M. De Nadai, R. Vieriu, G. Zen, S. Dragicevic, N. Naik, M. Caraviello, C. A. Hidalgo, N. Sebe, and L. Bruno. Are Safer Looking Neighborhoods More Lively? A Multimodal Investigation into Urban Life. In *Proceedings of the international conference on Multimedia*. ACM, 2016b. Forthcoming

M. De Nadai, J. Staiano, R. Larcher, N. Sebe, D. Quercia, and B. Lepri. **The Death and Life of Great Italian Cities: A Mobile Phone Data Perspective**. In *Proceedings of the 25th International Conference on World Wide Web*, pages 413–423. International World Wide Web Conferences Steering Committee, 2016a

S. Centellegher, M. De Nadai, M. Caraviello, C. Leonardi, M. Vescovi, Y. Ramadian, N. Oliver, F. Pianesi, A. Pentland, F. Antonelli, and B. Lepri. **The Mobile Territorial Lab: A multilayered and dynamic view on parents' daily lives**. *EPJ Data Science*, 5(3), 2016. doi:10.1140/epjds/s13688-016-0064-6

G. Barlacchi, M. De Nadai, R. Larcher, A. Casella, C. Chitic, G. Torrisi, F. Antonelli, A. Vespignani, A. Pentland, and B. Lepri. A multi-source dataset of urban life in the city of Milan and the Province of Trentino. Scientific data, 2015. doi:10.1038/sdata.2015.55

M. De Nadai and M. van Someren. Short-term anomaly detection in gas consumption through ARIMA and Artificial Neural Network forecast. In Environmental, Energy and Structural Monitoring Systems (EESMS), 2015 IEEE Workshop on, pages 250–255. IEEE, 2015. doi:10.1109/EESMS.2015.7175886

Oral

Investigating the relationships between spatial structures and urban characteristics CONTRIBUTIONS NetMob 2015 - MIT Media Lab - U.S.A. 2015

Posters

Investigating the relationships between spatial structures and urban characteristics from mobile phone data

NetSci-X 2016 - Wroclaw, Poland

2016

AWARDS

Best Master's student University of Trento

2016

Finalist Data Journalism Awards 2014

2014

Global Editors Network

Best mobile application

2014

Smau 2014

Special creativity price

2012

Personal Projects

Westgate Attack

Master project

2013

Visualization about the Westgate shopping mall attack case that took place in Nairobi, Kenya, during 21-24 September 2013. This project analyzed around 700'000 Tweets and tried to describe the events through the users' behavior. The beta can be found: http://lstout.github.io/westgate/html/.

## A new massive data analytics approach to football

Master project

2013

Small framework of tools which enables the coaches to base their new strategies not only on their intuition and judgment, but also on comprehensive (and maybe not human-eye visible) statistics. The framework is composed by a training clustering, a trajectories clustering, a speed performance analysis and a passages pattern visualization.

## Formal verification OAuth 2.0 protocol

Bachelor project

2010

Formal verification of the protocol OAuth 2.0 (draft 22) using the automatic cryptographic protocol verifier Proverif (http://prosecco.gforge.inria.fr/personal/bblanche/proverif/).

Komixjam.it

Developer - Founder

2006 - 2010

Brand creation and establishment of a community that counts 30'000 unique visits a day.

Background

Certifications: Scalable Machine Learning with Apache Spark

Advanced knowledge: Java, Objective-C, Python, PHP, Javascript, HTML5, CSS3, SQL

Medium knowledge: C, C++

Languages

• English: good (B2 level)

• Italian: native