

# Marco De Nadai

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CONTACT INFORMATION	E-mail: <a href="mailto:me@marcodena.it">me@marcodena.it</a>	GitHub: <a href="https://github.com/denadai2">https://github.com/denadai2</a>
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ACTUAL POSITION	<b>Ph.D. student in Data Science</b> <i>Fondazione Bruno Kessler - Università degli Studi di Trento, Italy</i> Data mining to describe and predict how objective and subjective characteristics of the city influence the behavior of dwellers. To do so, I do Data Fusion to join geographical data, census information, Google Street view images, and anonymous mobile phone data. Advisors: Dr. Bruno Lepri and Prof. Nicu Sebe	
EDUCATION	<b>Master's degree in computer science</b> , 110L/110, summa cum laude <i>Università degli Studi di Trento, Italy</i>	2015
	<b>Exchange Master's student</b> <i>Vrije Universiteit Amsterdam, The Netherlands</i>	2014
	<b>Bachelor's degree in computer science</b> , 100/110 <i>Università degli Studi di Udine, Italy</i>	2012
RESEARCH EXPERIENCE	<b>Visiting student research</b> <i>Massachusetts Institute of Technology (MIT), Massachusetts (USA)</i> Spatial networks, social studies, urban planning, mobile phone data	2016
	<b>Data scientist</b> <i>Fondazione Bruno Kessler, Italy</i> Research assistant on city science from mobile phone data.	2015
	<b>Data scientist intern</b> <i>Telecom Italia, Italy</i> Finding the link between mobile phone <i>hotspots</i> and socio-economic indexes such as GDP and wages.	2014 – 2015
	<b>Machine Learning intern</b> <i>University of Amsterdam, The Netherlands</i> Artificial Neural Networks predictive model and anomalies detection in building energy consumption.	2014
PUBLICATIONS	M. De Nadai, R. Vieriu, G. Zen, S. Dragicevic, N. Naik, M. Caraviello, C. A. Hidalgo, N. Sebe, and L. Bruno. <b>Are Safer Looking Neighborhoods More Lively? A Multimodal Investigation into Urban Life.</b> In <i>MM '16 Proc. 2016 ACM on Multimedia Conference</i> , pages 1127–1135. ACM, 2016b. doi: <a href="https://doi.org/10.1145/2964284.2964312">10.1145/2964284.2964312</a>	
	M. De Nadai, J. Staiano, R. Larcher, N. Sebe, D. Quercia, and B. Lepri. <b>The Death and Life of Great Italian Cities: A Mobile Phone Data Perspective.</b> In <i>Proc. 25th International Conference on World Wide Web</i> , pages 413–423, 2016a. doi: <a href="https://doi.org/10.1145/2872427.2883084">10.1145/2872427.2883084</a>	
	S. Centellegher, M. De Nadai, M. Caraviello, C. Leonardi, M. Vescovi, Y. Ramadian, N. Oliver, F. Pianesi, A. Pentland, F. Antonelli, and B. Lepri. <b>The Mobile Territorial Lab: A multilayered and dynamic view on parents' daily lives.</b> <i>EPJ Data Science</i> , 5(3), 2016. doi: <a href="https://doi.org/10.1140/epjds/s13688-016-0064-6">10.1140/epjds/s13688-016-0064-6</a>	
	G. Barlacchi, M. De Nadai, R. Larcher, A. Casella, C. Chitic, G. Torrisi, F. Antonelli, A. Vespignani, A. Pentland, and B. Lepri. <b>A multi-source dataset of urban life in the city of Milan and the Province of Trentino.</b> <i>Scientific data</i> , 2015. doi: <a href="https://doi.org/10.1038/sdata.2015.55">10.1038/sdata.2015.55</a>	
	M. De Nadai and M. van Someren. <b>Short-term anomaly detection in gas consumption through ARIMA and Artificial Neural Network forecast.</b> In <i>Proc. 2015 Workshop on Environmental, Energy and Structural Monitoring Systems (EESMS)</i> , pages 250–255. IEEE, 2015. doi: <a href="https://doi.org/10.1109/EESMS.2015.7175886">10.1109/EESMS.2015.7175886</a>	

SCHOLARSHIPS AND AWARDS	<b>Microsoft Azure Research Award</b> €20,000.00 to accelerate my research with Azure cloud computing credits.	2017
	<b>Italian Football Federation Match Analysis competition</b> €5,000.00 for a project analyzing the football matches with NLP techniques.	2017
	<b>Computational Social Science Summer school scholarship</b> Travel grant and free accommodation for my participation to the school.	2017
	<b>ACM Multimedia 2016 student travel grant</b> €750.00 to support my personal attendance at the conference.	2016
	<b>Google travel grant for WWW 2016</b> \$ 625.00 to support my personal attendance at the conference.	2016
	<b>Best Master's student</b> University of Trento	2016
SUMMER SCHOOLS	<b>Computational Social Science Summer school, Sant'Antioco (CA), Italy.</b>	2017
	<b>Complex networks: theory, methods, and applications, Como, Italy.</b>	2016
OTHER ACTIVITIES	<b>Reviewer</b> Plos one, Ubicomp, DAMI.	2016
	<b>Program committee member</b> ICDCS 2018, DAPS 2017.	2016
PH.D. PROJECTS	<b>Data fusion: GIS, mobile phone, census and crime data</b> Ongoing work	2017
	We use a MCMC Bayesian regression model to explore how geo-located crime data is related with the socio-economic, spatial and mobility characteristics of the neighborhoods of four cities in the world.	
	<b>Predictive model for real estate</b> Ongoing work	2017
	Ensemble of models that predicts property values from data coming from GIS, census, satellite, anonymous mobile phone information, Google Street View images, and information about companies.	
	<b>From Google Street View images to presence of people</b> Published in ACM Multimedia 2016	2016
We explore the connection between presence of people and the perception of security in neighborhoods. To predict presence of people we combine mobile phone data with scores of perceived safety, estimated by a Convolutional Neural Network trained on Google Street View images. Slides: <a href="http://goo.gl/M1ZZWu">http://goo.gl/M1ZZWu</a>		
<b>From Geographical and census data to presence of people</b> Published in WWW 2016	2016	
We operationalized an urban planning theory to model the connection between urban environment extracted from GIS data, and presence of people extracted from mobile phone data. Slides: <a href="http://goo.gl/382thc">http://goo.gl/382thc</a>		
BACKGROUND	<i>Certifications:</i> Scalable Machine Learning with Apache Spark, DeepLearning.ai course <i>Advanced knowledge:</i> Java, Objective-C, Python, PHP, Javascript, HTML5, CSS3, SQL <i>Medium knowledge:</i> C, C++	
LANGUAGES	<i>English:</i> good (B2 level) <i>Italian:</i> native	