

Marco De Nadai

CONTACT INFORMATION	E-mail: me@marcodena.it Website: http://www.marcodena.it	GitHub: https://github.com/denadai2 LinkedIn: http://nl.linkedin.com/in/marcodenadai
ACTUAL POSITION	Ph.D. student in Computer Science <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 people. To do so, I fuse multi-modal data to join geographical data, census information, Google Street view images, and anonymized mobile phone data. Advisors: Dr. Bruno Lepri and Prof. Nicu Sebe Expected Ph.D.: April 2019 Research Affiliate <i>Data-Pop Alliance, New York (USA)</i>	
EDUCATION	Master's degree in computer science , 110L/110, summa cum laude <i>Università degli Studi di Trento, Italy</i>	2015
	Exchange Master's student <i>Vrije Universiteit Amsterdam, The Netherlands</i>	2014
	Bachelor's degree in computer science , 100/110 <i>Università degli Studi di Udine, Italy</i>	2012
RESEARCH EXPERIENCE	Research scientist intern <i>Vodafone, London (UK)</i> People's mobility from GPS locations and mobile applications usage. Apache Spark ETL.	2018
	Visiting student research <i>Massachusetts Institute of Technology (MIT), Massachusetts (USA)</i> Spatial networks, social studies, urban planning, mobile phone data.	2016
	Data scientist <i>Fondazione Bruno Kessler, Italy</i> Research assistant on city science from mobile phone data.	2015
	Data scientist intern <i>Telecom Italia, Italy</i> Predictive model on socio-economic indexes and <i>hotspots</i> from mobile phone data.	2014 – 2015
	Machine Learning intern <i>University of Amsterdam, The Netherlands</i> Artificial Neural Network predictive model and anomalies detection in building energy consumption.	2014
PUBLICATIONS	M. De Nadai and B. Lepri. The economic value of neighborhoods: Predicting real estate prices from the urban environment. <i>DSAA '18</i> , 2018	
	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 <i>MM '16</i> , pages 1127–1135. ACM, 2016b. doi: 10.1145/2964284.2964312	
	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 <i>WWW '16</i> , pages 413–423, 2016a. doi: 10.1145/2872427.2883084	
	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. <i>EPJ Data Science</i> , 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](https://doi.org/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 *EESMS '15*, pages 250–255. IEEE, 2015. doi:[10.1109/EESMS.2015.7175886](https://doi.org/10.1109/EESMS.2015.7175886)

SCHOLARSHIPS AND AWARDS	Microsoft Azure Research Award	2017
	€20,000.00 to accelerate my research with Azure cloud computing credits.	
	Italian Football Federation Match Analysis competition	2017
	€5,000.00 for a project analyzing the football matches with NLP techniques.	
	Computational Social Science Summer school scholarship	2017
	Travel grant and free accommodation for my participation to the school.	
SUMMER SCHOOLS	ACM Multimedia 2016 student travel grant	2016
	€750.00 to support my personal attendance at the conference.	
	Google travel grant for WWW 2016	2016
	\$ 625.00 to support my personal attendance at the conference.	
	Best Master's student	2016
	University of Trento.	
OTHER ACTIVITIES	Computational Social Science Summer school, Sant'Antioco (CA), Italy.	2017
	Complex networks: theory, methods, and applications, Como, Italy.	2016
PH.D. PROJECTS	Reviewer <i>Plos one, Ubicomp, EPJ Data Science, DAMI, JOSIS, GeoJournal.</i>	
	Program committee member <i>ICDCS 2018, DAPS 2017.</i>	
	Data fusion: GIS, mobile phone, census and crime data	
	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.	
	From Google Street View images to presence of people	
	Published in <i>ACM Multimedia 2016</i>	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: http://goo.gl/M1ZZWu	
BACKGROUND	From Geographical and census data to presence of people	
	Published in <i>WWW 2016</i>	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: http://goo.gl/382thc	
LANGUAGES	<i>Certifications:</i> Scalable Machine Learning with Apache Spark, DeepLearning.ai course	
	<i>Advanced knowledge:</i> Python, PHP, Javascript, HTML5, CSS3, SQL, QGIS, PostGIS <i>Medium knowledge:</i> C, C++, Java, PyTorch	
	<i>English:</i> good (B2 level)	
	<i>Italian:</i> native	