



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)

Andrea Giudici, PhD



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Nationality Italian

Date of birth 29th March 1985

Gender Male

Occupational field **Software development / Research / Engineering**

Dates **November 2015- Current**

Occupation or position held IT Consultant

Main activities and responsibilities Consultant job aimed at developing application as part of Eliko's Smart City Project. The job consists in cooperating in the design of a distributed flood monitoring service and software for large scale dataset analysis.

Name and address of employer Flydog Marine LLC – <http://www.flydogmarine.com>

Type of business or sector Data Analysis, Software Development

Dates **December 2014- Current**

Occupation or position held Software Engineer, General Manager

Main activities and responsibilities Self-founded software development company in Tallinn. The main focus is on development of web and mobile applications, automation and computer vision. Recursive is profitable since the first year of operations. Net revenue for 2015 was 50K EUR. Projections for revenue 2016 are of +70%. The company counts 4 external contracted developers.

Name and address of employer Recursive Software Development OÜ – <https://www.recursive.ee>

Type of business or sector Software Development, Mobile Development, Data Analysis and Data Mining

Dates **September 2013- January 2015**

Occupation or position held Software Engineer

Main activities and responsibilities Development of internal software for shared use. Server administration. Maintenance of industrial grade and custom-build measurement devices, and of gps-tracking drifters employed within project MTT63-MTT, "Numerical particle tracking modeling for inhomogeneous turbulent water basins" at Tallinn University of Technology.

Name and address of employer Küberneetika Maja , Akadeemia Tee 21, Tallinn Estonia

Type of business or sector Engineering

Dates **February 2011- August 2013**

Occupation or position held Development Team Lead

Main activities and responsibilities	Team Lead within a project to develop a geo-localized SMS-based advertisement system. The system is based onto the Ericsson MPS with Trigger Interface, implemented in partnership with the biggest telco provider in Estonia, EMT. The project is the Estonian Innovation Award winning startup Flipper, based in Tallinn. The system is actively developed and maintained and offers its services to brands such as Apple, Skoda, Microsoft, McDonald's, Nike, and countless large local businesses.
Name and address of employer	Flipper Estonia, Gullwing Oü.
Type of business or sector	Software development, Database design and management
Dates	January 2014- Current
Occupation or position held	Researcher
Main activities and responsibilities	Field of Marine Engineering. Research focus on: large dataset analysis for ocean floating pollution modelling, firmware development of data-intensive remote sensing drifter buoys, development of control software for wave-generating basin. Extensive presentations at over 30 international conferences and symposia, of the published results and current status of research.
Name and address of employer	Tallinn University of Technology, Department of Cybernetics – Laboratory of Wave Engineering
Type of business or sector	Research, Development
Dates	January 2010- December 2014
Occupation or position held	Software Developer
Main activities and responsibilities	Development and design of web applications. A portable, plugin-based CMS solution was developed and sold under license. Experience with frameworks PHP Symfony2, Python Django and Play! for Java.
Name and address of employer	Mway Communication & Events S.r.l. di Mattia Righello
Type of business or sector	Software development
Dates	September 2009-December 2010
Occupation or position held	Technician
Main activities and responsibilities	Development of web based tools for backend management. Server administration.
Name and address of employer	Mway Communication & Events Support S.r.l. di Mattia Righello
Type of business or sector	Software development
Dates	August 2009-December 2010
Occupation or position held	Private teacher
Main activities and responsibilities	Private lecturer in Mathematics, Physics and Programming. Usual weekly schedule of 4 lectures of 2 hours each, to small groups of 2-10 persons.
Name and address of employer	Private subjects
Type of business or sector	University

Education and training

Dates	January 2011-January 2015
Title of qualification awarded	PhD, Civil Engineering
Principal subjects/occupational skills covered	Thesis successfully defended on the 27 th of January, 2015. Opponents: Steven R. Bishop, University College of London, Prof. Dr. Kristofer Döös, Stockholm University. Research study on Compressibility of the surface currents created by nonlinear waves. My research goal focuses on the restoration of the link between the source and impact areas of pollution in marine environment using the analysis of Lagrangian trajectories of current-driven pollution transport. The aim is to systematically characterize and visualize, through the analysis of large, terascale datasets, the pathways of pollution propagation from and the damaging potential of the offshore areas of the possible release of adverse impacts in terms of their transport to vulnerable regions, with the central goal to identify the areas, propagation of adverse impacts from which to high-value areas is most unlikely. Please refer to the list of publications at the end of this document.

Name and type of organisation providing education and training
Tallinn University of Technology

Level in national or international classification
Doctoral Level

Dates
September 2011

Principal subjects/occupational skills covered
International Summer School on Preventive methods for coastal protection

Name and type of organisation providing education and training
BONUS BalticWay Consortium and Geophysical Sciences Department, Klaipeda University

Level in national or international classification
Training school for Doctoral students

Dates
September 2008-September 2010

Title of qualification awarded
MsC, Computer Science, 110/110 Cum Laude.

Principal subjects/occupational skills covered
Final thesis titled "3D Visualization of large terascale datasets". Object of the thesis was to build an interactive 3D multi-screen device capable of offering a real-time access to very large amounts of data, such as meteorological data for marine areas, molecular structures and dense vector fields. The device was chosen for a demonstration to the German Ambassador of Estonia during a visit at the Tallinn Institute of Technology.

Name and type of organisation providing education and training
Università degli Studi di Genova

Level in national or international classification
Master of Science

Dates
September 2005-September 2008

Title of qualification awarded
Bachelor's Degree in Computer Science, 110/110

Principal subjects/occupational skills covered
Development, as final project, of a device for chromatic recognition, oriented to users with visual impairments.

Name and type of organisation providing education and training
Università degli Studi di Genova

Level in national or international classification
Bachelor's of Science

Personal skills and competences

Mother tongue(s)
Italian

Other language(s)

Self-assessment
European level ()*

English

French

Understanding		Speaking		Writing			
Listening		Reading		Spoken interaction		Spoken production	
	C2		C2		C2		C2
	B2		C2		A2		A2
							B1

(*) [A1-A2](#): Basic speaker. B1-B2: Independent speaker. C1-C2: Proficient speaker

Social skills and competences
Good skills in interpersonal relations, communication, listening, collaboration and problem solving. Good dialectic and emphatic capabilities.

Organisational skills and competences
Good skills in goal oriented projects, team work, management of time-sensitive tasks, coordination of different roles and figures involved in a project.

Known programming languages	<ul style="list-style-type: none"> - Python w/ Django, Django CMS, Pyramid, Flask. - Java / C# w/ Spring, Camel, Play! - PHP w/ Symfony2. - HTML5 / CSS3 / JS. Experience with broad range of frameworks - C and embedded micro compilers. - Bash - SQL like languages - MATLAB / Mathematica / R
Technical skills and competences	<p>Software development, problem-solving, algorithm development, structure analysis, relational databases (MySQL, SQLite, PostgreSQL and several others), editing technical documents, writing documentation, process optimization.</p> <p>Good experience in 3D programming and advanced 3D visualization techniques over different frameworks. Knowledge and skills in applied digital electronics.</p> <p>Good skills in mathematics. Working experience with industrial microcontrollers and development platforms (PIC, Atmel, Arduino, ARM, Z80). Knowledge of signal analysis theory.</p>
Driving licence	European Driving License A and B
Other general information	Self-taught piano player, love sports in general. Avid alpine skier and I have experience teaching sailing. Non-CS interests are quite broad and they range from aviation in general, to flight simulation, r/c models, electronics, light fixture operation, kayaking, air-soft.

Giudici, Andrea; Torsvik, Tomas; Soomere, Tarmo (2017). Development of a Flexible, Extendable, and Low-Cost Control Unit for Surface Drifters. *Journal of Atmospheric and Oceanic Technology*, 34(3), 669-677.

Kudryavtseva, Nadia; Soomere, Tarmo; Giudici, Andrea (2016). Validation of multi-mission satellite altimetry for the Baltic Sea region. *Geophysical Research Abstracts*, 18, EGU2016-5571.

Giudici, Andrea; Soomere, Tarmo (2015). Finnish Meteorological Institute's open data mining tool. 28th Nordic Seminar on Computational Mechanics : 22 - 23 October, Tallinn, 2015, Proceedings of the NSCM28. Ed. Berezovski, Arkadi; Tamm, Kert; Peets, Tanel. Tallinn: CENS, Institute of Cybernetics at Tallinn University of Technology, 59-62.

Giudici, Andrea; Soomere, Tarmo (2015). Identification of areas of spontaneous current-induced surface patch formation in the Gulf of Finland. *Climate modelling and impacts from the global to the regional to the urban scale : An international scientific seminar at Hafencity University Hamburg*, 10 March 2015, Poster Abstracts. *Baltic Earth; HCU*, 9.

Giudici, Andrea (2015). Measurement of spontaneous current-induced patch formation processes in the marine surface layer. 10th Baltic Sea Science Congress : Science and innovation for future of the Baltic and the European regional seas, 15-19 June 2015, Riga, Latvia, Abstract Book. 246.

Giudici A., Soomere T. 2014. Finite-time compressibility as an agent of frequent spontaneous patch formation in the surface layer: a case study for the Gulf of Finland, the Baltic Sea. *Marine Pollution Bulletin*, doi: 10.1016/j.marpolbul.2014.09.053

Giudici, Andrea; Soomere, Tarmo (2013). In search for the areas of natural patch generation in the Gulf of Finland. In: BSSC 9th Baltic Sea Science Congress 2013 : New Horizons for Baltic Sea Science, 26-30 August, 2013, Klaipeda, Lithuania, Abstract Book: Klaipeda: Coastal Research and Planning Institute of Klaipeda University (KU CORPI), 2013, 40.

Giudici, Andrea; Soomere, Tarmo (2014). Highly persisting patch formation areas in the Gulf of Finland, the Baltic Sea. In: 2nd International Conference on Climate Change - The environmental and socio-economic response in the Southern Baltic region : Szczecin, Poland, 12-15 May 2014, Conference Proceedings: (Toim.) Witkowski, Andrzej; Harif, Jan; Reckermann, Marcus. Geesthacht, Germany: Helmholtz-Zentrum Geesthacht, 2014, (International Baltic Earth Secretariat Publication; 2), 84 - 85.

Giudici, Andrea; Soomere, Tarmo (2014). Measuring finite time compressibility from large simulated datasets: towards identification of areas of spontaneous patch formation in the Gulf of Finland. In: Databases and Information Systems : Proceedings of the 11th International Baltic Conference, Baltic DB&IS 2014, [8-11 June, Tallinn, Estonia]: (Toim.) Haav, Hele-Mai; Kalja, Ahto; Robal, Tarmo. Tallinn: Tallinn University of Technology Press, 2014, 441 - 446.

Giudici, Andrea; Soomere, Tarmo (2013). Identification of areas of frequent patch formation from velocity fields. *Journal of Coastal Research*, SI 65, vol. 1, 231 - 236.

Kalda, Jaan; Soomere, Tarmo; Giudici, Andrea (2013). On the finite-time compressibility of the surface currents in the Gulf of Finland, the Baltic Sea. *Journal of Marine Systems*

Giudici, A.; Soomere, T. (2013). Identification of coastal areas of frequent patch formation from velocity fields. In: ICS2013 International Coastal Symposium 2013 : Book of Abstracts, Plymouth University, 8-12 April 2013: (Eds.) Russell, P.E.; Masselink, G.. CERF, 2013, 105.

Giudici, A.; Kalda, J.; Soomere, T. (2012). On the compressibility of surface currents in the Gulf of Finland, the Baltic Sea. In: IEEE/OES Baltic 2012 International Symposium : May 8-11, 2012, Klaipeda, Lithuania, Proceedings: IEEE, 2012, [1 - 8].

Giudici, A.; Kalda, J.; Soomere, T. (2012). On the compressibility of surface currents in the Gulf of Finland, the Baltic Sea. In: 2012 IEEE/OES Baltic International Symposium "Ocean : Past, Present and Future. Climate Change Research, Ocean Observation & Advances Technologies for Regional Sustainability in Europe on Janis, May 8-11, 2012, Presentation Abstracts: Klaipeda: Baltic Valley, © European Union, 2004-2010. 24082010 2012, 54.

Giudici, Andrea; Kalda, Jaan (2011). Compressibility of sea surface created by 3D current field. In: 8th Baltic Sea Science Congress [BSSC] : 22-26, August 2011, St.Petersburg, Russia : Book of Abstract: St. Petersburg: RSHU, 2011, 57.

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