Europass Curriculum Vitae

Personal information

Surname(s) / First name(s)	**Ravanelli Roberta**
Address(es)	Rome, Italy
Email(s)	roberta.ravanelli@uniroma1.it
Nationality(-ies)	Italian
Gender	Female

Research and professional activities

Position held 01/11/2013 - now	Ph.D student at the Geodesy and Geomatics Division of the University of Rome *La Sapienza*
Main research subject	3D dense model reconstruction with low cost sensors, mainly range cameras (e.g Microsoft Kinect); study of validation and calibration techniques of these sensors
04/12/2015 - now	Co-founder of *Kuaternion SRL*
26/05/2015 - 21/08/2015	Software developer for OpenCV (*Open Source Computer Vision*) within the international program *Google Summer of Code 2015*
Project title	*Structured-Light System Calibration for OpenCV*
Project description	Porting of 3DUNDERWORLD-SLS algorithm, an open source structured-light scanning system for rapid geometry acquisition, inside the OpenCV software library, developing the structured-light module
19/05/2014 - 18/08/2014	Software developer for OSGeo (*Open Source Geospatial Foundation*) within the international program *Google Summer of Code 2014*
Project title	*LiDAR segmentation Plug-In based on RANSAC and PCA algorithms for Opticks*
Project description	Development of a LiDAR Plug-In (written in C++) for Opticks software platform, implementing a RANSAC-based technique for the automatic extraction of building roof planes from LiDAR point clouds

Education and qualification

22/03/2013	**Master of Science (M.S.) degree in Environmental Engineering**
Final mark	110/110 with honours
Thesis title	*Kinect range camera from videogames to geomatics: accuracy assessment and 3D modeling potentialities*
Principal subjects/Occupational skills covered	Land Reclamation Technologies, Geophysics, Waste Treatment Technologies, Reuse and Recycle of Waste Materials, Environmental Impact Assessment and Risk Assessment, Mechanics of Environmental Fluids, Geomatics, Math, Physics
Institute of Education	University of Rome *La Sapienza*

21/12/2010	**Bachelor of Science (B.S.) degree in Environmental Engineering**
Final mark	110/110
Thesis title	*Fermentative production of hydrogen from domestic waste in semi-continuos reactor*
Principal subjects/Occupational skills covered	Design and Management of Wastewater Treatment Technologies, Applied Chemical Technologies, Hydrology, Mechanics of Fluids, Math, Physics
Institute of Education	University of Rome *La Sapienza*
03/07/2007	**Scientific High School Diploma (bilingual experimentation)**
Final mark	98/100
Institute of Education	Scientific High School *C. Cavour*, Roma

Awards and acknowledgements

01/10/2013	Selected to participate in *Microsoft Kinect for Windows V2 Developer Preview Program*, receiving pre-release Kinect for Windows V2 sensor, including associated software and services (SDKs, APIs, and sample documentation)
21/04/2014	Accepted student in the *Google Summer of Code 2014* international program
23/04/2014	Joint second place at the *Pink Hackathon Nuvola Rosa*: project based on the Microsoft Kinect, developed in the C# programming language
27/04/2015	Accepted student in the *Google Summer of Code 2015* international program
23-25/10/2015	Second place at the *PinkHack*: project based on the Intel® RealSense™ F200 camera, developed in the C# programming language

Personal skills and competences

Mother tongue(s) **Italian**

Other language(s) English, French (DELF B1 certification)

Self-assessment *European level*(*)	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	C1 Proficient user	C2 Proficient user	B1 Independent user	B1 Independent user	C1 Proficient user
French	B1 Independent user	B1 Independent user	B1 Independent user	B1 Independent user	B1 Independent user

(*) *Common European Framework of Reference (CEF) level*

Informatics skills

Operating systems: Windows, UNIX/Linux

Programming languages: C# (in particular WPF applications and Kinect for Windows SDKs - v1 and v2), C++, Python, LaTeX

Libraries:

C#: Emgu CV, Meta Numerics
C++: Standard Library, Boost, Qt framework, OpenCV
Python: SciPy, NumPy, matplotlib, PyLab, os

IDE and compiler: Microsoft Visual Studio (2010, 2013), Eclipse Luna (C++)

Commercial Softwares: Microsoft Office

Open Source Software: Opticks, MeshLab

Certifications: Introduction to Scientific Programming using GPGPU and CUDA (CINECA, February 2014), Introduction to Parallel Computing with MPI and OpenMP (CINECA, March 2014), Introduction to Scientific and Technical Computing in C (CINECA, November 2014), Introduction to Scientific and Technical Computing in C++ (CINECA, November 2014)

Additional information

Driving Licence(s) Driving licence category B

February 8, 2016 Signature .