

Luca Giancardo

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PROFILE

A First Class Software Engineering graduate that has been working for one year as a researcher in Real Time Tracking ltd (www.rttracking.com) a company that produces innovative products based on computer vision technologies. Currently, I have just completed a 2 years MSc Master in Computer Vision and Robotics thanks to a grant by the Oak Ridge National Laboratory (Tennessee, USA) where I worked as an external researcher.

PERSONAL DETAILS

- Date of Birth: 27th December 1983, Turin, Italy.
- Hobbies: jazz music, playing saxophone, rock climbing, free diving.

EDUCATION

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| 2006-2008 | <i>European MSc in Computer Vision and Robotics</i> in Heriot-Watt University Edinburgh (UK), Universitat de Girona (Spain), University of Burgundy (France) and the Oak Ridge National Laboratory in Tennessee (USA).
Final result: pending (partial result: Distinction) |
| 2002 - 2005 | <i>BSc (Honours) in Software Engineering at Southampton Solent University, UK.</i>
Final result: First Class (first of my course). |
| Summer 2001 | <i>C++ Course certified by Microsoft</i> |
| 1997 - 2002 | <i>Maturità Scientifica</i> (Italian equivalent of 3 A Levels).
Overall Mark: 80% |

ACADEMIC ACHIEVEMENTS

- Winner of the David Nicholas Award for Innovation 2005 for my final year project (the tftMouse, see below) awarded by the Wessex Round Table of Inventors (<http://www.wrti.org.uk/InventiqueMar06.pdf> and <http://www.wrti.org.uk/InventiqueJuly05.pdf>).
- Winner of the *British Computer Society Prize* as best final year student in Software Engineering in the Southampton Solent University

PROJECTS DEVELOPED

- *Quality Detection For Retinal Fundus Images*
A preprocessing algorithm to aid the automatic screening of diabetic retinopathy with a fundus camera. The results of this algorithm are presented on a IEEE EMBC conference paper and my Master thesis.
- *Computer Vision Tracking system (tftMouse)*
A system that allows the use of the computer using the movements of the face and eye blinks. It can be used thanks an off-the-shelf web-cam, in visually noisy environments and without training. See <http://sourceforge.net/projects/tftmouse>
- *Single Camera Tracking System*
It allows to reliably identify the location filmed by a camera in a 3d known environment. It works using colour and movement information.
- *Various Computer Vision/Image Processing/Robotics projects*
Many projects have been developed as part of my Master course. Examples are: automatic image category classification (Pascal project), image steganography/watermarking, stereoscopic 3D reconstruction, 3D hearth reconstruction from 2D slices, robotic control system with reinforcement learning and complete development of a portable 3D scanner based on a webcam and a laser.

- *Live Video Editing System*
It allows to shot and to edit a live audio/video stream from multiple camera feeds. The video is encoded in real time to various compressed formats. It uses a variable number of machines which communicate between each others.
- *Real-time Java Games for Mobile Devices*
- *Various Web Applications using J2EE, PHP and Perl*
- *Various Unix and Windows desktop applications based on C/C++, Java, GTK and Delphi.*

SKILLS

TECHNICAL

- *Unix/Windows Programming Languages Experience:* C, C++, Matlab, Java, Perl, Prolog, PHP, JSP, XML, SQL, PL/SQL, Object Pascal, VB, VBA.
- *Software engineering:* ability to manage all the software development phases from Analysis to Validation. Notation known: UML, Yourdon, SSADM.
- *Database Designer/Administrator:* Oracle, Mysql, Derby and Access.
- *HTML Design:* HTML, DHTML, Javascript, Flash
- *Unix/Windows System Administration:* multiuser environments with Web Server, FTP server, DNS Server, Mail Agents.

COMMUNICATION

- Good communication skills gained from giving academic presentations and producing technical reports for companies in various European countries.
- *Languages:* Italian (mother tongue), English (fluent), Spanish (intermediate), French (beginner).

WORK EXPERIENCE

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| Feb - Jun 2008 | <i>Researcher in Oak Ridge National Laboratory</i>
I have researched and developed part of a system for the automatic screening of diabetic retinopathy. |
| 2005 - 2006 | <i>Researcher for Real Time Tracking Ltd</i>
My role was to investigate and develop new software technologies that are than used in the Computer Vision systems produced by this company. |
| Summer 2003/04 | <i>System administrator and software developer for Backward Group</i>
Full Time Job for the same company, with the additional responsibility of building and maintaining their servers. |
| 1999 - 2002 | <i>Software developer for Backward Group</i>
Part Time Job for an Italian web agency that allowed me to get a lot of experience in the creation of real world web applications using heterogeneous technologies. |

REFEREES

- *Prof. Fabrice Mériaudeau:* Director of Le2i Laboratory, VIBOT Master Coordinator
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- *Paul Schenk:* Director
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