

Marta Gaia Zanchi

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PROFILE-----

Six years of experience at:

- Designing novel hardware methods for the Optical, Nuclear and Magnetic Resonance imaging fields
- Researching, analyzing and synthesizing complex projects
- Visualizing project priorities and implementing creative strategies toward practical goals

EDUCATION-----

2006-present: Ph.D., Electrical Engineering, Stanford University, CA; GPA: 3.98/4
2003-2005: M.S., Electrical Engineering, Cum Laude, Politecnico Di Milano, Italy; GPA: 30/30
2000-2003: B.S., Biomedical Engineering, Cum Laude, Politecnico Di Milano, Italy; GPA: 30/30

INTENSIVE TRAINING -----

- **Trained in finance, marketing, accounting, public speaking, leadership, and networking** by the Stanford Graduate School of Business faculty at the Summer Institute for Entrepreneurship 2008. In teams of five, participants extensively work together to the writing of a business plan for a new venture, and present their plans to a panel of Venture Capitalists
- **Trained in Molecular Imaging** Positron Emission Tomography (PET), Single Photon Emission Computerized Tomography and Radiotherapy Treatment Planning by the School of Excellence in Physics for Medicine “Piero Caldirola” in Florence, Italy

EXPERIENCE & ACCOMPLISHMENTS-----

- **Wrote a funding proposal awarded \$80,000** by the In Vivo Cellular and Molecular Imaging Center during volunteering activity at the Molecular Imaging Instrumentation Laboratory, Nuclear Medicine Division of Stanford School of Medicine, for studies associated with a small animal PET system insert for a Magnetic Resonance (MR) system for simultaneous small animal PET/MR imaging
Synopsis: During the summer of 2006, pending the start of the Ph.D. program in Electrical Engineering, I designed the mechanical package for a hand-held gamma camera, built hardware for testing of vertical-cavity surface emitting lasers to be used in the optically-coupled front-end of a PET detection module, and wrote the funding proposal for the development of a prototype PET system insert employing this novel class of semiconductor laser diodes
- **Wrote a funding proposal awarded 300,000€** (first of six rounds of funding totaling 1,715,000€) by the European Union during employment as Research Assistant to Professor Carlo Fiorini at the Electrical Engineering Department of Politecnico Di Milano University, Italy, to develop an Anger camera for diagnosis of cancers
Synopsis: In 2005, during a four-month effort to secure funding for the specific-target research of the Radiation Detectors and Nuclear Instrumentation Laboratory, Professor Carlo Fiorini and I developed partnerships through contact with individual companies, research institutes, universities, and hospitals in Europe, and coordinated the efforts of these partners in the preparation of the successful project proposal
- **Supported the activity of the medical personnel** twice by monitoring clinical imaging equipment at the Radiology & Nuclear Medicine Division and at the Cardiology & Cardiac Surgery Division of the prestigious Riuniti Hospitals of Bergamo, Italy
Synopsis: During the summers of 2002 and 2004, to identify the unmet needs of the end-users of the medical devices I was developing at Politecnico Di Milano, I volunteered to assist the medical personnel of the Riuniti Hospitals during routine use of technology in operating rooms and diagnostic departments. The activity led to long-lasting cooperation with Dr. Ugo Guerra, head of the Nuclear Medicine Division and later partner to the project for the development of an Anger camera awarded by the European Union

- **Organized the activities and coordinated the resources** of the Optical Laboratory at Politecnico Di Milano University, Italy, and of the Biomedical Laboratory at McGill University, Montreal, Canada, to develop optical spectroscopy systems based on Single Photon Avalanche Diodes for measurement of myoglobin oxygen saturation

Synopsis: During the spring of 2003, to encourage the application in medicine of the innovative single-photon detectors developed at Politecnico Di Milano, I volunteer to bring two of these devices to the renowned spectroscopy research group at McGill University, and work in team to demonstrate a prototype muscle myoglobin oxygen saturation measurement system based on these detectors

EMPLOYMENT-----

- 2007-present: **Research Assistant**, Stanford University, Stanford, California
 Designed hardware solutions for radio-frequency safety in Magnetic Resonance imaging
- Summer 2007: **System Design Intern**, Volterra Semiconductors Corporation, Fremont, California
 Developed behavioral time-domain model of dc-dc power converters
 Presented successful results at Volterra's Application Quarterly Review
- 2005-2006: **Research Assistant**, Politecnico Di Milano University, Italy
 Designed electronics readout, cooling system, and mechanical assembly for an Anger Camera
 Characterized silicon drift detectors for Single Photon Emission Computerized Tomography

HONORS & AWARDS-----

- **Garnier Fellowship Award 2008**, Summer Institute for Entrepreneurship, Stanford University, CA
 Applicants: Graduates of the 2008 Summer Institute for Entrepreneurship (72 graduates)
 Criteria: "In recognition of your exemplary performance throughout the program [...] as well as the anticipated impact you will have as you move forward in your career," excerpt from the letter accompanying the award, signed by Garth Saloner, Director of the Center for Entrepreneurial Studies, Stanford Graduate Business School
 Recipients: Five
- **Forbes Fellowship Award 2006-2007**, Stanford University, CA
 Applicants: Admitted Ph.D. students in Electrical Engineering at Stanford University, 2006 (150 students)
 Criteria: Academic curriculum
 Recipients: One
 Amount: \$41,000
- **Outstanding Graduate Medal 2004-2005**, Politecnico Di Milano University, Italy
 Applicants: M.S. graduates of Politecnico Di Milano in all Engineering programs, 2005 (5000 graduates)
 Criteria: Academic distinction, intellectual vitality, personal contributions
 Recipients: One
- **ACCENTURE Award 2005**, Politecnico Di Milano University, Italy
 Applicants: M.S. graduates of Politecnico Di Milano in Communication Systems Engineering, Management Science and Engineering, Computer Science, Electrical Engineering, 2005 (2000 graduates)
 Criteria: Academic curriculum, intellectual vitality, personal contributions
 Recipients: Eight
 Amount: 2,500€

OTHER INTERESTS AND ACHIEVEMENTS-----

- **Graduate in Professional Fashion Photography** of the John Kaverdash Academy, Milan, Italy, 2004-2005
- Motorcyclist, hiker, active environmentalist