GABRIELE SPINA

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Personal Information

Birthdate	22-10-1986
Birthplace	Palermo (PA), Italy
Gender	Male

Professional work Experience

2012–now **PhD Student** at Philips Research, Smart Professional Spaces Group and Eindhoven University of Technology, Dept. of Electrical Engineering.

- Unobtrusive technologies, signal processing and data mining algorithms for modular patient training and monitoring systems.

2011–11 **Internship** (Italian Institute of Technology)

- EU project: Robots Bootstrapped through Learning from Experience

2010–11 **Research Assistant** (Frankfurt Institute for Advanced Studies)

- EU project: Intrinsically Motivated Cumulative Learning Versatile Robots

Expertise

Data analysis, ubiquitous and embedded systems, biomedical devices, robotics.

Achievements

2015 First Runner up at Philips Sleep and Respiratory Care's first Creative Playground

- Idea selected for Startup Bootcamp and a project was initiated within Philips business.

Education

2008–10 UNIVERSITY CAMPUS BIO-MEDICO OF ROME
MASTER DEGREE IN BIOMEDICAL ENGINEERING WITH HONORS (110 cum laude out 110)
Specialization in Robotics and Bio-Microsystems
Thesis: "Bio-inspired robotic vision system for active visual perception based on intrinsic motivation"
Supervisor: **Prof. Dr. Eugenio Guglielmelli** *(University Campus Bio-Medico of Rome)*
Co-Supervisors: **Prof. Dr. Jochen Triesch**, **Eng. Pramod Chandrashekhariah** *(Frankfurt Institute for Advanced Studies)*

2005–08   UNIVERSITY CAMPUS BIO-MEDICO OF ROME
BACHELOR DEGREE IN BIOMEDICAL ENGINEERING (110 OUT 110)
Thesis: "Study and realization of a system for the remote control of a wereable device for the monitoring of the face"
Supervisor: **Prof. Dr. Eugenio Guglielmelli** *(University Campus Bio-Medico of Rome)*
Co-Supervisor: **Dr. Giuseppina Schiavone** *(University Campus Bio-Medico of Rome)*

2000–05   SECONDARY SCHOOL GALILEO GALILEI
ITALIAN SECONDARY SCHOOL DIPLOMA, SCIENTIFIC CERTIFICATE **(100 OUT 100)**

Computer Skills

Packages   Matlab, OpenCV, Cisco Packet Tracer, Eagle, SolidWorks, Proteus, Latex, MS Office

OS   Linux, Windows

Languages c++, c

Certificate CCNA Discovery: Networking for Home and Small Businesses (January 29, 2010)

Patent Applications

2015   Breathing support system for COPD patients to overcome shortness of breath (breathing tool with feedback), European Patent application 30-10-2015, Philips Internal Reference 2015PF01437

2015   Breathing support system for COPD patients to overcome shortness of breath (breathing tool for use with pressurized gas canister), European Patent application 30-10-2015, Philips Internal Reference 2015PF01532

2014   System and method to detect respiration markers, European Patent application 12-12-2014, Philips Internal Reference 2014PF01453

Research Publications

2015   **Gabriele Spina** et al.
           Identifying Physical Activity Profiles in COPD Patients Using Topic Models
           IEEE Journal of Biomedical and Health Informatics, 2015.

2014   Rafael Mesquita, **Gabriele Spina** et al.
           Cluster analysis of objectively measured physical activity in 1001 COPD patients
           ERJ September 1, 2014 vol. 44 no. Suppl 58 3486.

2014   Pramod Chandrashekhariah**, Gabriele Spina** and Jochen Triesch
           A Curious Vision System for Autonomous and Cumulative Object Learning
           Computer Vision, Imaging and Computer Graphics–Theory and Applications, Springer Berlin Heidelberg, 2014, Volume 458, pp 195-211.

2013   **Gabriele Spina** and Oliver Amft
           Toward smartphone assisted personal rehabilitation training
           XRDS crossroads, ACM 2015, Volume 20, pp 33-37.

2013   **Gabriele Spina**, Guannan Huang, Anouk Vaes, Martijn Spruit and Oliver Amft
COPDTrainer: A smartphone-based motion rehabilitation training system with real-time acoustic feedback
Ubicomp 2013, ACM Internetional Joint Conference on Pervasive and Ubiquitous Computing, 8-12 September, 2013, Zurich, Switzerland.

2013   **Gabriele Spina**, Frank Roberts, Jens Weppner, Paul Lukowicz and Oliver Amft
CRNTC+: A smartphone-based sensor processing framework for prototyping personal healthcare applications
PervasiveHealth 2013, IEEE International Conference on Pervasive Computing Technologies for Healthcare, 5-8 May, 2013, Venice, Italy.

2013   **Gabriele Spina**, Pramod Chandrashekhariah and Jochen Triesch
Let it Learn: A Curious Vision System for Autonomous Object Learning
International Conference on Computer Vision Theory and Applications, 21-24 February, 2013, Barcelona, Spain.

2013   Frank J.M. Roberts, **Gabriele Spina**, Constantin Ungureanu, Oliver Amft
Daytime Monitoring of Patients with Epileptic Seizures Using a Smartphone Processing Framework and On-Body Sensors
4th Dutch Bio-Medical Conference, 2013, 24-25 January, 2013, Egmond aan Zee, The Netherlands. (Abstract)

2012   Jurgen Leitner, Pramod Chandrashekhariah, Simon Harding, Mikhail Frank, **Gabriele Spina**, Alexander Forster, Jochen Triesch and Jurgen Schmidhuber
Autonomous Learning Of Robust Visual Object Detection And Identification On A Humanoid
ICDL-EpiRob paper, 2012, IEEE Conference on Development and Learning, and Epigenetic Robotics, 7-9 November, 2012, San Diego, USA. (Winner of the "Paper of Excellence Award")

2011   Quan Wang, Pramod Chandrashekhariah and **Gabriele Spina**
Attention shift in infant habituation: a conceptual and computational model motivated by learning
ICDL-EpiRob, 2011, *IEEE Conference on Development and Learning, and Epigenetic Robotics*, 24-27 August, 2011, Frankfurt am Main, Germany

Part time work Experience

2012–13   Teaching assistent for the course **"Ubiquitous Computing and Activity Recognition"**

2012–13   Teaching assistent for the course "Statistical signal processing"

Language Skills

Native   Italian

Fluent   English

Basic   Dutch (attended and passed the exam "Dutch for Beginners", study hours: 160)

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[1] I hereby authorize the processing of the personal data contained in this CV in compliance with the Italian Personal Data Protection Code (Legislative Decree no. 196 of 30 June 2003).