

Curriculum Vitae et Studiorum

Personal informations

Name and surname

Residence

Current address

Telephone

email

Date and place of birth

Nationality

Gender

Michele Scipioni

Via Dante Alighieri, 4 - 62010, Montecosaro (MC)

Via Francesco Carnelutti, 18 - 56124, Pisa (PI)

+39 320 2475453

scipioni.michele@gmail.com

12 September 1989, Macerata (MC), Italy

Italian

M



Current position

Dates

Name and type of education institute

Position

Principal subjects (keywords)

November 2015 - present

University of Pisa - Department of Information Engineering

Ph.D. student

Positron emission tomography, Kinetic modelling of radio tracers, direct methods of creation of parametric maps, direct segmentation of dPET images in sinogram domain

Work experience

Dates

Name of the employer

Type of business or sector

Position held

Main activities or responsibilities

Address

May 2015 - December 2015

Fondazione CNR/Regione Toscana "Gabriele Monasterio" (FTGM), Pisa

Biomedical research institute

Intern

Quality management in nuclear medicine; use of workstations for acquisition, reconstruction and processing of NM data; management of the methods of storage and retrieval of data in NM; acquire basic knowledge of the techniques of kinetic analysis of dynamic PET sequences.

via G. Moruzzi, 1 - Pisa (PI), Italy

Dates

Name of the employer

Type of business or sector

Position held

Main activities or responsibilities

Address

October 2014 - April 2015

Department of Information Engineering (DII) at University of Pisa

Biomedical research institute

Master thesis student

I have done an extensive research in the field of direct estimation techniques of kinetic parameters from dynamic PET acquisitions, researching, implementing and testing an algorithm of this type, and thus coming to the writing of the thesis for my master degree.

via G. Moruzzi, 1 - Pisa (PI), Italy

Dates

Name of the employer

Type of business or sector

Position held

Main activities or responsibilities

Address

July 2011 - December 2011

Department of Information Engineering (DII) at Università Politecnica delle Marche

University department

Bachelor thesis student

Definition of a protocol for measuring sEMG signal on a sample of volunteers; acquisition of laboratory measurements; processing and analysis of results; writing of the bachelor thesis.

Università Politecnica delle Marche, Via Brecce Bianche - Ancona (AN) Italy

- Other working experiences -	
Dates	March 2011 - September 2012
Name of the employer	SNAI S.p.A - Quartiere Risorgimento, via Ginocchi - Civitanova Marche (MC) Italy
Position held	Terminal operator
Dates	June 2006 - September 2012
Name of the employer	Cluana Nantes - Beach Rescue , Via Sicilia 36, Civitanova Marche (MC), Italy
Position held	Sea Lifeguards, seasonal employment contract
Dates	September 2008 - July 2010
Name of the employer	Società Cooperativa Sportiva Dilettantistica 'Il Grillo' - C.da San Domenico, 125/a - Civitanova Marche (MC), Italy
Position held	Swimming instructor
Education and training	
Dates	October 2012 - April 2015
Name and type of education institute	University of Pisa - School of Engineering
Principal subjects/occupational skills covered	Master's degree in Biomedical Engineering: Biomedical Signal and Image Analysis, Analogic and Digital Electronics, Minimally invasive devices, Bioinformatics (Python), Databases (SQL, HTML, BMF), Android, Diagnostic instrumentation (RX, CT, PET, SPECT, MRI)
Title of qualification awarded	Master's graduate in Biomedical Engineering - Final mark: 110/110 cum laude
Thesis title	<i>New methods for direct estimation of kinetic parameters from dynamic PET images.</i>
Dates	October 2008 - December 2011
Name and type of education institute	Università Politecnica delle Marche - Faculty of Engineering
Principal subjects/occupational skills covered	Bachelor's degree in Biomedical Engineering: Mathematics, Physics, Informatics (C++, SQL), Chemistry, Bioengineering, Electronics, Mechanics, Automation, Physiology, Biomechanics, Electromagnetism, Biomaterials and Bioinstrumentation.
Title of qualification awarded	Bachelor's graduate in Biomedical Engineering - Final mark: 109/110.
Thesis title	<i>Analysis of the changes of locomotion patterns due to treadmill walking.</i>
Dates	September 2003 - July 2008
Name and type of education institute	Liceo Scientifico G. Galilei , Macerata (MC)
Title of qualification awarded	High school leaving qualification in scientific studies - Final mark: 100/100
- Other training experiences -	
Title of qualification awarded	June 2008 - Swimming instructor licence
Title of qualification awarded	June 2006 - MIF - Surf Lifeguard - FIN-067582
Title of qualification awarded	May 2006 - European Computer Driving Licence (ECDL)
Period abroad	
Dates	August - September 2007 : 3 weeks period
Place	Regency College, 61 Western Road, Brighton and Hove, E. Sussex, UK
Purpose	" Progetto Ulisse 2007 ": language training funded by the province of Macerata through public announcement of selection
Dates	March 2007: 1 week period
Place	United Nations International Headquarters and the Hilton New York, New York City, USA
Purpose	National High School Model United Nations (NHSMDUN): simulation project where students work as accredited delegates in committees of the Organization: they are called upon to analyze the main themes on the agenda of the UN, identifying themselves with the country represented and negotiating proposals and solutions with delegates from other countries.

(ongoing) Publications	<p>Title Authors Date Conference name and location</p> <p>The Influence of Noise in Dynamic PET Direct Reconstruction M. Scipioni, M. F. Santarelli, V. Positano and L. Landini [2016] XIV Mediterranean conference on Medical and Biological Engineering and Computing (MEDICON), Paphos, Cyprus</p>
Partecipation to meetings and conferences	<p>Title Authors Date Conference name and location</p> <p>Pharmacokinetic analysis of dynamic PET data: comparison between direct parametric reconstruction and conventional indirect voxel-based estimation M. Scipioni, M.F. Santarelli, A. Giorgetti, V. Positano, S. Fucci, L. Landini [Poster presentation - conference <i>due on March 7 - 11 2016</i>] European molecular Imaging Meeting (EMIM 2016), Utrecht, Netherlands</p>
	<p>Title Authors Date Conference name and location</p> <p>The Influence of Noise in Dynamic PET Direct Reconstruction M. Scipioni, M. F. Santarelli, V. Positano and L. Landini [Conference proceeding - conference <i>due on March 31 - April 2 2016</i>] XIV Mediterranean conference on Medical and Biological Engineering and Computing (MEDICON), Paphos, Cyprus</p>
Partecipation to conferences (without talks)	<p>Dates Title Main topics Place</p> <p>24 June 2015 New trend in high-resolution pre-clinical molecular imaging MRI in pre-clinical imaging; pre-clinical ultrasound in the murine model; new trends in hybrid imaging; high resolution ultrasound and photoacoustic imging for experimental oncology; new technology from Visualsonics: Vevo 3100 and LAZR Visualsonics (and practical demonstration) Research area of National Research Council - Institute of clinical Physiology, via G. Moruzzi, 1 - Pisa (PI), Italy</p> <p>Dates Title Main topics Place</p> <p>12 June 2015 Training for staff exposed to magnetic fields Biological effetc of magnetic field in magnetic resonance imaging room; difference between static field, gradients and RF; risks related to various types of magnetic field; oxygen alarm system; system for switching off the static magnetic field; forced ventilation; quench; faraday cage. Ospedale del Cuore, via Aurelia Sud, 54100 Massa (MS), Italy</p> <p>Dates Title Main topics Place</p> <p>25 January 2014 Tecnology and robotics in rehabilitation The added value of robotics in rehabilitation; G-EO Systems: a robot that helps you taking the stairs; Amadeo: the hand, tool of creativity; the application of robotics for neurorehabilitation at Santo Stefano; instrumental analysis of movement in patients with stroke; from Ekso to G-EO Systems: the experience of the IRCCS San Raffaele Pisana, Rome; Virtual Reality, the game effect and the evaluation of results for the physical and cognitive recovery. Auditorium Istituto S.Stefano - Via Aprutina, 194 - 62018 Porto Potenza Picena (MC), Italy</p>

Research projects	
Dates	October 2014 - April 2015
Type	Master's thesis
Project title	New methods for direct estimation of kinetic parameters from dynamic PET images
Topic	The algorithm subject of this work aims to combine into a single formula the operations of reconstruction and kinetic analysis of dynamic PET data: working directly on the projection data can improve both the quality and the speed of the resulting estimate. We presented a software implementation by which we could evaluate, via Monte Carlo simulations on an homogeneous test phantom, its performance in different SNR conditions. Subsequently, simulations of realistic phantoms were carried out to reproduce the behaviour of anatomical sections of interest (thoracic and cerebral). This led, ultimately, to a first exploratory test on real experimental data.
Dates	October 2014 - April 2015
Type	Individual university project
Project title	Android App Development
Topic	Design and realization of an android interface that allows users to (1) access a remote database of songs, (2) listen a preview of a few seconds and (3) confirm the purchase. After the transaction, the app will create a text file (recipe) with the total cost, saving it in a dedicate folder of the SD card. Furthermore, the app implements an its own music player.
Dates	October 2014 - April 2015
Type	Group university project
Project title	ICT & Life Science DataBase project and realization using Bio Medical Framework (BMF)
Topic	The project consists of the design and implementation of an application for the management of databases in the clinical setting. The final goal has been the design and implementation of a database application based on relational DBMS and related user interface, addressing issues of conceptual and logical design and documenting the architecture of the software developed. The web application has been developed through the use of the BMF.
Dates	July 2011 - December 2011
Type	Bachelor's thesis
Project title	Analysis of the changes of locomotion patterns due to treadmill walking
Topic	AIM: To test the effectiveness of treadmill as a tool to help people injured to recover and regain ability to walk freely and, at the same time, as a gait analysis system. METHODS: The comparison covers spatio-temporal (speed, cadence, stride length), kinetic (angular movement of the knee joint) and electromiographic (contraction intensity, number and duration of muscle activations) characteristics. CONCLUSIONS: From a kinetic point of view we can assert the absence of statistically significant changes. By using sEMG to register muscular activity data, we advise some changes in temporal distribution of contractions and activations but, thanks to our statistical approach, we can again classify them as not so significative.
Dates	March 2011 - June 2011
Type	Individual university project
Project title	Ultrasound eco-tomography
Topic	The purpose of the essay is to make direct contact with the laboratory instruments and not only see it during exercises. Research topic is the ultrasound tomography that is studied starting from the physical principles of image formation, through the hardware used and the way those tomographic images are generated. The work end with an identification of the main criteria used for diagnostic interpretation of the produced images and main artifacts that one can encounter and which degrade the quality of the image.

Personal skills and competences																				
Mother tongue(s)	Italiana																			
Other languages	Inglese e Spagnolo																			
<i>Self-assessment European level^(*)</i>																				
English	<table border="1"> <thead> <tr> <th colspan="2">Understanding</th> <th colspan="2">Speaking</th> <th rowspan="2">Writing</th> </tr> <tr> <th>Listening</th> <th>Reading</th> <th>Spoken interaction</th> <th>Spoken production</th> </tr> </thead> <tbody> <tr> <td>B2 Independent user</td> <td>C1 Proficient user</td> <td>B2 Independent user</td> <td>B2 Independent user</td> <td>C1 Proficient user</td> </tr> <tr> <td>A2 Basic user</td> <td>A2 Basic user</td> <td>A1 Basic user</td> <td>A2 Basic user</td> <td>A2 Basic user</td> </tr> </tbody> </table>	Understanding		Speaking		Writing	Listening	Reading	Spoken interaction	Spoken production	B2 Independent user	C1 Proficient user	B2 Independent user	B2 Independent user	C1 Proficient user	A2 Basic user	A2 Basic user	A1 Basic user	A2 Basic user	A2 Basic user
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Spanish	([*]) Common European Framework of Reference (CEF) level																			
English	<p>First Certificate in English (FCE) - Cambridge English Language Assessment, June 2007 - European level: B2</p> <p>Certificate level of english as a foreign language (Livello B2) - Interdepartmental Language Centre (CLI) of the University of Pisa, July 2014 - European level: B2</p>																			
Spanish	<p>Certificate level of spanish as a foreign language (Livello A1) - Interdepartmental Language Centre (CLI) of the University of Pisa, February 2015 - European level: A1</p>																			
Social skills and competences																				
<ul style="list-style-type: none"> - I have developed and refined social, communication, group work and public relationship skills both in my sport and working activity in the field of competitive swimming, having to interact with people of very different ages, and in the organization and management of summer camps for children. - The experience working as a lifeguard has sharpened my ability to handle situations where you need to interact with a large number of people in contexts, sometimes, of emergency, while being able to maintain control of the situation. - Active listener and open, ready to learn from all those with whom I come in contact. - Clear and concise (oral communication), precise and attentive to detail (in writing). 																				
Organisational skills and competences																				
<ul style="list-style-type: none"> - Leadership (I had the opportunity to lead different groups of students during academic projects). - Attention to detail. - Ability to work both independently and in team. - Logistics and events organization capability, developed during my activity within the Cultural Artistic Association "Vox Dei Art", based in Morrovalle (MC), Italy. - Self Motivation. 																				
Technical skills and competences																				
<ul style="list-style-type: none"> - Ability to analyze the results of tests conducted. - Ability to conduct researches aimed at solving clinical problems. - School knowledge of human anatomy and physiology - Able to analyze medical documents and complex technical and scientific publications in the biomedical sector 																				

Computer skills and competences	<p>Operative systems: Windows (very good); Linux (good)</p> <p>Programming: good</p> <p>Word processing: excellent</p> <p>Spreadsheets: good</p> <p>Database: very good</p> <p>Web sites design: good</p> <p>Programming language(s): C++ (basic), HTML(good), CSS(good), MATLAB(very good), LaTeX (excellent), Python(good), Android(good), PL/SQL(very good)</p> <p>Applicazioni e programmi conosciuti: MATLAB, Office, BioMedicalFramework, MathCAD, Eclipse</p> <p>ECDL (European Computer Driving Licence) : Yes</p>
Artistic / sports skills and competences	<p>Due to my artistic training (I studied piano for eight years with private weekly lessons), I was able to refine and improve my musical, technical and expressive skills, which until 2012 I exercised within the Cultural Artistic Association "Vox Dei Art", based in Morrovalle (MC), Italy.</p> <p>I have practised swimming at a competitive level for nearly 15 year, until 2010, receiving awards at regional and national level and receiving the "Athlete of the year" award from the mayor of Civitanova Marche (MC), Italy, in 2008.</p>
Other skills and competences	<p>I like to dedicate myself to amateur editing of images and / or video, and to the creation of websites, putting into practice a bit of self-taught knowledge.</p>
DECLARATIONS:	<p>I declare that the information in this Curriculum Vitae is correct and true.  Date..... Signature.....</p> <p>I authorize the use of these personal data for the purposes of review of my qualifications for any post or position for which I have applied, according to Italian Law 196/2003, and for no other purpose.  Date..... Signature.....</p>