

Paolo Emilio Selva

software engineer



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Currently I am employed at JellyfishPictures Ltd. in London like a software engineer for a project, writing web applications and plugins.

I was employed in research and development at the University of Rome Tor Vergata, developing a video-based motion capture system in Java. I was also developed an eyetracker in C++ using infrared cameras in collaboration with the University of Sao Paulo in Brazil, an e-learning platform named *Life* in PHP and MySQL which is part of a multi university project, coordinated by the *ISIM_Garage* and *ScuolaIaD* of the University of Rome Tor Vergata, a cognitive-maps based user-profiling system in Java. While working on these projects as well as design and implementation ones, I developed my problem solving skills.

I also was a contract professor for three courses in the course of studies in *Media and Communication Sciences* in the University of Rome Tor Vergata: *Laboratory of programming and numerical analysis in Java*, *Modelling and rendering for human character with 3dsmax*, *Introduction to programming and the C language*.

I'd like to involve myself into CGI productions for cinema. My experiences in research and development may be used to find new solution to raise the efficiency of the production process.

Profile

- Media and communication scientist
- Software engineer and problem solver
- Good knowledge of object oriented programming languages
- Good skills in C++ and Java
- Very good scripting skills in Python, MEL and others scripting languages
- Fast in learning new development environments and SDK
- Extensive research experience about new Motion Capture technologies and Human-Computer-Interaction interface design such as Next Generation Multitouch systems

Experience

- 2008 FEB ~ *present* – JellyfishPictures Ltd., London, UK • *Software developer*
Creation of plugins (C++) for internal software and developing of an asset management system (PHP, MySQL)
- 2003 NOV ~ 2007 OCT – University of Rome, ITALY • *Lecturer*
Lectured in the course *Programming and numerical analysis in Java* and the course *Introduction to programming and the C language*, for the *Communications and Media Sciences* course of study at the University of Rome “Tor Vergata”
- 2006 NOV ~ 2007 FEB – University of Rome, ITALY • *Lecturer*
Lectured in the course *Modelling and rendering for human characters*, for the *Mathematic Elaboration of Signals and Images* course of study at the University of Rome “Tor Vergata”.
- 2006 JUL ~ 2006 NOV – *ISIM_Garage* at University of Rome, ITALY • *Software engineer*
Developed the automatic evaluation system for the scientific papers at the *HCIED conference* (<http://www.bcs-hci.org.uk/hcied2007/index.php>) using PHP and MySQL. This system is used also at the *SIE-L conference* (<http://www.sie-l.it>).
- 2006 OCT ~ *present* – *ScuolaIaD* at University of Rome, ITALY • *Lead technical engineer*
Coordinated a team of junior and senior programmers to develop the e-learning platform named *Life* (<http://fante.roma2.infn.it/life/login.php>) used at the University of Rome “Tor Vergata” for over forty courses of study. For this project I also developed, using PHP, MySQL and Java, the core, the translation system, the plug-and-use system to add functionalities and the automatic user-profiling system based on the cognitive-maps (see the paper). From 2007 September this will become an open-source project.
- 2006 JUN ~ 2006 SEP – Silkroad Studios, CANADA • *3D artist*
Architectural modelling, texturing, lighting and rendering for a communication project about SpiceSafar (lounge-bar series) opening in Montreal produced by Silkroad Studios.
- 2005 JAN ~ 2006 MAY – University of Rome, ITALY • *Software developer*
Developed the realtime presence awareness system for courses of study using a barcode reader to read the fiscalcode barcode version generated in PHP. This is an implementation of the e-learning platform *Life*. Also setup the laboratories network for work in LDAP mode with MacOSX systems, where every student can access on any machine having his desktop and all his data recorded on server.
- 2005 OCT ~ 2007 FEB – MIFAV, University of Rome, ITALY • *Lecturer*
Lectured in the course *Graphics for the interaction* using Processing (<http://www.processing.org>) for the MSC in *Advanced Technologies for Interactive Communication* at the University of Rome “Tor Vergata”
- 2005 FEB ~ 2005 JUL – Cinematography and Television Institute of Rome, ITALY • *Lecturer*
Lectured in the courses: *3D systems and interfaces*, *3D modelling*, *3D Digital animation theory*, *Textures and materials* and *Lights and cameras* using 3dsmax for the Master in “3D Animator” made by Regione Lazio.
- 2004 OCT ~ 2005 APR – Animapolis at Cinecittà Studios in Rome, ITALY • *3D artist*
Modeling, animation, texturing, lighting and rendering in a short produced by the *Comune di Roma, Provincia di Roma* and *Animapolis* in the *Cinecittà Studios* in Rome.
- 2003 DEC ~ 2006 DEC – MIFAV-SI, University of Rome, ITALY • *Technical supervisor*
Technical supervisor and producer for the *3DDAY* (<http://interfacce.mifav.uniroma2.it/3dday/index.php>), some days about the world of tridimensional computer graphics, organized in the *Interfacce* event session at the University of Rome “Tor Vergata”.
- 2002 FEB ~ 2005 FEB – Military City Cecchignola of Rome, ITALY • *Lecturer*
Lectured in the course *Object oriented programming in Java* for the *Course of specialization electronic, optoelectronic and computer science of the Armed Forces*.
- 2003 FEB ~ 2003 JUL – ISIM Onlus, Rome, ITALY • *Software engineer*
Developed the GUI and a Macromedia Director X32 plugin for audio-recording for an interactive exposition at the Uffizi Gallery, Florence, Italy.

2001 SEP ~ 2001 DEC – University of Rome, ITALY • *Software engineer and 3D artist*

3D animator, 3D modeller, GUI, program and layout developer for the CD *Envisioning geometry*, supervised by Professor F. Ghione at the University of Rome “Tor Vergata”, Mathematics department.
http://www.mat.uniroma2.it/~cd_btga/prodot/Visione/Demo/Home.HTM

2001 JUN ~ 2001 SEP – personal project • *3D artist*

3D animator and modeller for a short film titled *Press Play On Mind*, winner of the Interfacce 2001 award.

Conferences & Publications

2003 FEB – Didamatica conference, Genova, ITALY • *Invited talk and selected papers*

Home University: piattaforma flessibile per didattica assistita e a distanza (authors: C.Giovannella, P.E.Selva, F.Zaveti, L.Serafini, A.Bruni, F.DiClemente, V.Baraniello, S.Salvini)

Mappe Concettuali per la gestione di contenuti e per i test di apprendimento concettuale (authors: C.Giovannella, P.E.Selva)

<http://didamatica2003.itd.cnr.it/programma.html>

2003 APR – Gesture Workshop conference, Genova, ITALY • *Invited talk and selected papers*

Gloves as web-nodes to interact with virtual environments (authors: P.E.Selva, M.Minori, M.Gatta, C.Giovannella)

2003 JUN – CSCL:Computer Support for the Collaborative Learning conference, Bergen, NORWAY • *Invited talk and poster*

Collaborative Content Management and Evaluation by Means of Conceptual Maps (authors: C.Giovannella, P.E.Selva)

<http://www.intermedia.uib.no/cscl/FinalProgramme/PostersAndDemosSunday.htm>

2003 JUL – ICALT:3th IEEE International Conference on Advanced Learning Technologies, Athens, GREECE • *Invited talk and selected papers*

Conceptual Learning Assessment and Content Management in e-Learning Platform by Means of Conceptual Maps (authors: C.Giovannella, P.E.Selva, L.Serafini, A.Bruni)

<http://csdl.computer.org/comp/proceedings/icalt/2003/1967/00/19670400abs.htm>

2003 OCT – PHP-Day 2003 conference, Rome, ITALY • *Invited talk*

Il PHP come collante (authors: V.Baraniello, A.Bruni, P.E.Selva, C.Giovannella)

http://www.phpday.it/download/2003-10-24/6_PHP_Elearning.pdf

2003 NOV – Interfacce 03, Natural User Interface conference, Rome, ITALY • *Invited talk*

ICCI: Interfaccia Cinestetica per la Comunicazione Ipermodale (authors: P.E.Selva)

2004 MAY – Didamatica 2004, Ferrara, ITALY • *Invited talk and selected papers*

HomeUniversity: verso un ambiente di apprendimento virtuale mappa-centrico (authors: C.Giovannella, P.E.Selva, V.Baraniello; page 497 Atti OmniaCom Editore)

Problematiche del parallelismo presenza/online nella creazione e nella gestione di una comunità di apprendimento universitaria (authors: C.Giovannella, V.Baraniello, L.Serafini, P.E.Selva; page 827 Atti OmniaCom Editore)

2004 NOV – SIE-L conference, Genova, ITALY • *Invited talk*

HomeUniversity: un ambiente di apprendimento flessibile nato per sperimentare l'incontro tra tecnologia e metodologia (authors: V.Baraniello, S.Coco, P.E.Selva, C.Giovannella)

Utilizzo delle mappe concettuale/semantiche per la profilatura dello studente a scopo informativo, valutativo e preventivo (authors: P.E.Selva, C.Giovannella)

Strategie di trasferimento di informazioni e di navigazione reticolari per servizi di M-Learning: un utilizzo di massa a basso costo (authors: S.Coco, P.E.Selva, C.Giovannella)

<http://www.sie-l.it>

2005 MAY – Didamatica 2005 conference, Potenza, ITALY • *Invited talk and selected papers*

MapEvaluator: analisi quantitativa di mappe concettuali per la valutazione dei processi di apprendimento (authors: C.Giovannella, P.E.Selva, S.Coco)

M-Learning di massa a basso costo: HU-Mobile, nuove strategie per la navigazione reticolare tra informazioni e servizi (authors: S.Coco, P.E.Selva, C.Giovannella)
<http://www.unibas.it/didamatica2005>

2006 JUL – SIE-L conference, Rome, ITALY • *Invited talk and selected papers*

Life: a first step toward the development of an online learning environments of new generation (authors: C.Giovannella, P.E.Selva, F.Cicola, P.Ciarfaglia)
<http://www.sie-l.it>

Studies

Bachelor's degree in *Communications and Media Sciences* (equivalent to a Bachelor's degree in Computer Science) at the faculty of *Mathematics* by the *University of Rome Tor Vergata*. Graduation grade 106/110 (in May 2003)

Languages

Italian mother-language. Good knowledge of written and spoken English

Hobbies

I love 3d animation, to make short-film, cinema, japanese animation, real time 3d programming, teaching, sci-fi and fantasy books, water sports, in-line skating, capoeira.

I am a rower (provincial champion and national silver medal at the Italian Championship of Rowing).

Skills

- Good knowledge of low cost CGI production packages such as 3dsmax, V-Ray, finalRender, Photoshop, Premiere and AfterEffects
- Ease to switch between windows, linux or macosx
- Ease to learn new SDK
- Knowledge of Win32 API and MFC, ease to write cross-platform source code
- C and C++ programming
- Java programming
- Python scripting
- Plugin and script creation in Maya, Fusion, 3dsmax and XSI
- Ease to use IDE or non-IDE systems