Gonçalo N. **Paiva Amador**

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"First, solve the problem. Then, write the code." John Johnson

Summary

Software Engineer, Project Researcher, Laboratory Professor, and Scientific Presenter with over 9 years of experience. Highly motivated, communicative, self-sufficient, and versatile professional with solid academic background in Computer Science and Engineering, namely in: Game Engine Technologies, Teaching methodologies, HPC, and HCI. Known as a team player, multi-tasker, constant self-driven learner; strive to address novel and exciting challenges by integrating, adapting, developing novel knowledge/tools. Preference to work with and/or manage teams in order to grow personally and professionally.

Research Interests

- Multi-touch, Voice and Camera-based HCI technologies.
- 3D Animation/Modelling and Geometrical Computing.
- Multi-Core CPU/GPU and Cloud computing.
- Computational Fluids Dynamics (CFD).
- Artificial Intelligence, Robotics, and Cybernetics.
- Computer Games & Gamification.

Skills

Programming/meta Languages & APIs/Frameworks:

- C/C++, C#, Java, shell scripting, SQL, CUDA/OpenMP/OpenCL/MPI,OpenGL, HTML/CSS/JavaScript/XML, UML, LaTeX.

Productivity tools:

- Git/SVN, Gimp, Skype, Google Chrome, Mozilla Firefox, LibreOffice, Blender, Eclipse/Netbeans/VisualStudio 2005-current.

Operating Systems Usage:

- MS Windows (2003-2008 server, 7,10), Linux (Ubuntu, Mint Cinnamon, Fedora, and OpenSuse), Android and iOS.

Experience

Instituto de Telecomunicações and Graphics & Media Laboratory
Covilhã, Portugal

PhD Researcher for <Foundation for Science and Technology> — Jan. 2012 - Present

- Engineering and design of a novel modular game engine architecture.
- Implementation and development of novel pathfinders reactive to influence maps.
- Conducting research and case studies on leading edge algorithms and technologies. Writing scientific papers.
- Lecturing about achieved results and possible new research trends.

Research Associate for <PTDC/EIA/70830/2006, MOGGY - A Browser-Based Massive Multiplayer Online Game Engine Architecture> Project — Mar. 2008 - Dec. 2011

- Implementation of a game engine to test state management processing, storage and communication techniques.
- Implementation of Grid-based solutions to transform multi-player games into MMOGs.
- Conducting research and review the state of art regarding Massive Multiplayer Online Games (MMOGs).

Universidade da Beira Interior
Covilhã, Portugal

Lab Instructor for the 11498-Computer Science and Engineering & 11156-Game Design and Development: Video Games Technologies Course — Jan. 2012 - July 2016

and the 5385-Computer Science and Engineering: Computer graphics Course — Jan. 2012 - July 2012

- Developed laboratory course material, including practical sheets and tests (available upon request).
- Responsible for 0.5 hour lecture and supervision of 1.5 hour laboratory.
- Participated in practical project joint assessment with course supervisor.

Research Associate for <POCI/V/04.01302/0155/0002/2006, "Metodologias Dinâmicas para o Sucesso em Matemática> Project — July 2007 - Apr. 2008

- Creation of dynamic contents (presentations and work sheets) for theoretical and laboratory mathematics courses.
- Integration of dynamic content with a content management system (CMS), assessment and extension of CMSs.
- Research, implementation, and testing of novel modern ways to divulge a math department.

✸ Certifications

SAP   *online*
SAP HANA Cloud Platform* Essentials   April. 2017 - May 2017
- openSAP
- Online Certificate
- Valid from March 29, 2017 - Present

SAP HANA Cloud Platform* Essentials   Feb. 2017 - March 2017
- openSAP
- Online Certificate
- Valid from March 29, 2017 - Present

Extending SAP S/4HANA with SAP HANA Cloud Platform*   Jan. 2017 - March 2017
- openSAP
- Online Certificate
- Valid from February 28, 2017 - Present

Cisco   *Covilhã, Portugal*
CCNA Routing and Switching: Introduction to networks   Oct. 2013 - Jan. 2014
- Cisco NetAcad
- Valid from Jan. 2014 - Present

ⓘ Additional Information

Researcher with 9 international scientific articles published (1 journal and 8 conferences).
Keynote speaker at 8 technical, technological and scientific events.
B1/B Drivers license

🎓 Education

Department of Computer Science and Engineering, Universidade da Beira Interior   *Covilhã, Portugal*
PhD in Computer Science and Engineering (?/20 points)   Jan. 2012 - Present
- Thesis: Influence-based Motion Planning Algorithms for Games
- Advisor: Professor Abel Gomes
- **Availability to start working on April 1 of 2017, requiring a week off for the thesis defense (expectedly May/June).**

Bachelor's Degree in Information Technologies and Systems (15/20 points)   Sept. 2010 - July 2011
- Final Project: Seamless zoning algorithms for MMOGs over a Grid (18/20 points)

Master's Degree in Computer Science and Engineering (18/20 points)   Sept. 2007 - Oct. 2009
- Final Thesis: Real-Time 3D Rendering of Water using CUDA (19/20 points)
- Advisor: Professor Abel Gomes

Bachelor's Degree in Computer Science and Engineering (13/20 points)   Sept. 2002 - July 2007

Secondary/High School of Peniche   *Peniche, Portugal*
High school Professional Degree in Electrotechnology and Electronics   Sept. 1998 - July 2001

🌎 Languages

Proficient User (CEFRL:C2): Portuguese (Native), English.
Basic User (CEFRL:A1): Spanish, French.