



## Gonçalo N. Paiva Amador

🏠 Peniche, Portugal · 🇵🇹 Portuguese · 📅 27/07/1983 · ♂ Male · 🧑 Single  
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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, Maven, Ant, 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

- Implementation and development of novel pathfinders reactive to influence maps.
- Conducting research, writing scientific papers, and 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

- Engineering and design of a novel modular game engine architecture to test state management 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, and practical project joint assessment.

#### 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

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### SAP

#### Developing Java-Based Apps on SAP Cloud Platform\*

online

April. 2017 - May 2017

- [openSAP](#)
- [Online Certificate](#)
- Valid from May 18, 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

#### CCNA Routing and Switching: Introduction to networks

*Covilhã, Portugal*

Oct. 2013 - Jan. 2014

- [Cisco NetAcad](#)
- Valid from Jan. 2014 - Present

## Additional Information

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**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

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, UNIVERSIDADE DA BEIRA INTERIOR

*Covilhã, Portugal*

#### PhD in Computer Science and Engineering (18/20 points)

Jan. 2012 - July 2017

- Thesis: Influence-based Motion Planning Algorithms for Games
- Supervisor: [Professor Abel Gomes](#)

#### 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)
- Supervisor: [Professor Abel Gomes](#)

#### 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)
- Supervisor: [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

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**Proficient User (CEFR:L:C2):** Portuguese (Native), English.

**Basic User (CEFR:L:A2):** Spanish, French.