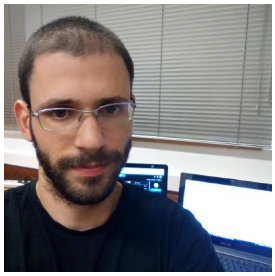

Gonçalo N. **Paiva Amador**

Lisbon, Portugal · *Portuguese* · *27/07/1983* · *Male* · *Single*

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

Summary

Software developer in several programming languages, also with experience in primary technical contact point with one or more clients, assisting in planning, debugging, and supervising ongoing critical business applications. Former Project Researcher, Lab Instructor, and Scientific Presenter with 9+ Yrs of experience. Highly motivated, communicative, and self-sufficient professional with solid academic background in C.S. & Engineering, namely in: Game Engine Technologies , Teaching, HPC, Geometric Computing, and HCI. Known as a team player and constant self-driven learner; striving to address novel and exciting challenges. Preference to work with and/or manage teams in order to grow personally and professionally.

Areas of Interest

- Touch/Voice/Camera-based HCI technologies.
- 3D Animation/Modelling & Geometrical Computing.
- Multi-Core CPU/GPU and Cloud computing.
- Computational Fluids Dynamics (CFD).
- Artificial Intelligence, Robotics, and Cybernetics.
- Computer Games & Gamification.
- Workforce scheduling & management software.
- Network Security & Configuration & Administration.

Skills

Programming/meta Languages & APIs/Frameworks:

C/C++[4], C#[2][5], Java[4][5], ASP Classic[5], Prolog[2], OCaml[2], shell scripting[4], PL/SQL[5], T-SQL[2][6], JSP/jQuery/Ajax/JSON/Bootstrap[5], Angular & Node.js[5], Apache Struts[5], OpenGL[4], CUDA/OpenMP/OpenCL/MPI[3], HTML/CSS/JavaScript/XML[3][6], UML[2], LaTeX[4].

Productivity tools:

Azure DevOps[5], Team Foundation Server (TFS)[6], Zendesk[5], Redmine[5], Git[3][5], SVN[2][5], Apache Maven[2][5], Apache Ant[4][5], Apache Tomcat[5], LibreOffice[4], Eclipse[3][5], Netbeans[4], Oracle SQL developer[6], Visual Studio 2005-current[4][5], Visual Studio Code[5], MS Office Suite[6], MS SQL-server 2012-2017[2][6], PowerBI[5], Skype/Skype for Business[5], Google Chrome[6], Internet Explorer[4][6], Teamviewer[4][5], SoapUI[5], Postman[5], Swagger[5], IIS 6-8[5].

Operating Systems Usage:

MS Windows 2003-2016 server, XP - 10[4][6], Linux (Ubuntu, Mint, Fedora, and OpenSuse)[4], CiscoIOS[5].

Academic: <1 Yr[1], 1 - 2 Yrs[2], 3 - 5 Yrs[3], 5+ Yrs[4]

Professional: <1 Yr[5], 1 - 2 Yrs[6], 3 - 5 Yrs[7], 5+ Yrs[8]

Experience

AMARIS (PROFESSIONAL) — *Lisbon, Portugal*

ASP classic Developer — June 2019 - Present

Software and Oracle Database Developer — Jan. 2019 - June 2019

Technical Account Manager — Feb. 2018 - Dec. 2018

REDIT (PROFESSIONAL) — *Lisbon, Portugal*

Software Consultant — Jul. 2017 - Jan. 2018

Instituto de Telecomunicações and Graphics & Media Laboratory **(Academic)**

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

Context: Study and ultimately attempt to Develop a game engine for MMOGs to work on the browser.
Functions: Develop a Java game engine prototype, to test state management algorithms. Assist in porting an existing multi-player game (Jake2) to a MMOFPS resorting to GridGain. Implement fluid simulators in the GPU. Elaboration and public presentation of scientific conference articles.
Technologies: GridGain, Jgroups, JogAmp, Apache Math Commons, OpenGL, CUDA/OpenMP/OpenCL/MPI Java 1.6, C/C++, LaTeX, Windows XP-7.

Universidade da Beira Interior **(Academic)** *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

Context: Lab. assistant in practical component of the video game technologies and computer graphics courses.
Functions: Develop lab. course material, including practical sheets and tests (available upon request). Responsible for 0.5 hour lecture and supervision of 1.5 hour lab. Participated in practical project joint assessment with course supervisor.
Technologies: Whiteboard, LibreOffce, JmonkeyEngine, NetBeans, Java 1.6-1.8, LaTeX, Windows XP-7.

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

Context: Develop dynamic ways to dynamize a math department and math teaching at an university level.
Functions: Creation of dynamic contents (presentations and work sheets) for theoretical and laboratory mathematics courses, i.e., dynamic presentations intended to make math learning more interactive and available outside the class room.
Technologies: Blackboard, Mathematica, Matlab, LaTeX, Beamer, Windows XP.

Certifications

Cisco *Covilhã, Portugal*

CCNA Routing and Switching: Introduction to networks Oct. 2013 - Jan. 2014

Valid from Jan. 2014 - Present

Education

Department of Computer Science and Engineering, Universidade da Beira Interior *Covilhã, Portugal*

PhD in Computer Science and Engineering (18/20 points) Jan. 2013 - June 2017

Thesis: Influence-based Motion Planning Algorithms for Games
Supervisor: Professor Abel Gomes
Context: Implementation of a modular game engine, suitable for teaching a video games technologies course.Path finding algorithms merged with influence maps.
Functions: Survey state-of-the-art regarding (i)modular game engine architectures, (ii)video game technologies teaching methodologies, (iii)influence maps and path finding algorithms. Game engine development (JOT). Implementation of a novel pathfinding algorithm, and two novel techniques to integrate influence maps with pathfinders. Writing of journal/conference scientific articles and thesis, presentation of conference articles, and thesis oral presentation/defense.
Technologies: GIT, NetBeans, Java 1.6-1.8, GridGain, JGroups, JogAmp, Apache Maven, Apache Math Commons, LaTeX, Linux Mint, Fedora, Ubuntu, OpenSuse, Windos XP-7 .

Bachelor's Degree in Information Technologies and Systems (15/20 points) Sept. 2010 - July 2011

Master's Degree in Computer Science and Engineering (18/20 points) Sept. 2007 - Oct. 2009

Thesis: Real-Time 3D Rendering of Water using CUDA (19/20 points)
Supervisor: Professor Abel Gomes
Context: Extending a 2D fluids simulation algorithm to 3D in the GPU resorting to CUDA.
Functions: Gathering/analysis of state-of-the-art regarding fluid simulation in virtual environments. Porting a 2D fluids simulation (Jos Stam Stable fluids) algorithm to 3D in the GPU resorting to CUDA. Writing of journal/conference scientific articles and thesis, presentation of conference articles, and thesis oral presentation/defense.
Technologies: Visual Studio 2005-2008, CUDA 2.0, C/C++, LaTeX, Linux Mint, Fedora, Ubuntu, OpenSuse, Windos XP-7 .

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

Languages

Proficient User (CEFRL:C2): Portuguese (Native), English.
Basic User (CEFRL:A2): Spanish, French.

Additional Information

Researcher with 13 international scientific articles published (4 journal and 9 conferences).
Keynote speaker at 9 technical, technological and scientific events.
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