Pedro Boechat

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in <u>linkedin</u>

o github

stackoverflow

videos videos

wordpress

SUMMARY OF QUALIFICATIONS

Senior Programmer

- 14 years in the software industry (9 enterprise, 5 games)
- 4 years in the academia

Computer Graphics Scientist

• 2 papers published in SIGGRAPH Asia

Indie Developer

• \$15k prize winner in a nationwide game contest in Brazil

WORK EXPERIENCE

Senior Graphics Programmer

nDreams

Jan 2023 - Present

Lead Programmer

Lab42 Games

Jan 2021 - Dec 2022

- Ported Grid Legends from PC/high-end consoles to the Meta Quest 2:
 - Ported the codebase to Android.
 - Extended the engine's Vulkan renderer to support multiple features needed by a tile-based renderer.
 - Restructured the engine's forward rendering path.
 - Tweaked the engine's core systems to better conform to the platform's hardware capabilities.
 - Integrated OpenXR to the engine.
 - Extended the engine's asset building pipeline to support ASTC and OBB packing.

Senior Programmer

Codemasters

Aug 2018 - Dec 2020

- Worked on the new world editor used in the <u>F1 game series</u>:
 - Decoupled the entity system from the old editor and re-integrated it into the new editor.
 - Increased the robustness of the communication between the editor and the engine.
 - Extended the engine's entity system to support edit-time components.
 - Created a visual editor for the cutscene system scripting language.

Lead Programmer

Bongfish

Apr 2017 - Jul 2018

- Worked on the development of tools to synthesize realistic game scenery from real-world data for the new Microsoft Flight Simulator:
 - Used ML techniques to segment and classify data from aerial images.
 - Built a cloud-based system to run large scale processes.
 - Generated 3D models at run-time using procedural modeling techniques.

Senior Programmer

Bongfish

Apr 2016 - Mar 2017

- Worked on the Frontline game mode for World of Tanks:
 - Helped implementing new game mechanics, such as the respawn system.
 - Refactored important entities, such as the in-battle inventory.

Research Assistant

Graz University of Technology

Apr 2014 - Mar 2016

- Researched GPU programming techniques applied to procedural generation:
 - Co-authored 2 publications in Siggraph Asia (once as <u>first author</u> and another as collaborator).
 - Co-supervised 2 Master's students.
- Developed a procedural scene generator for Bongfish under grant program (Innovationscheck 2016).

Research Assistant

Pontifical Catholic University

Mar 2012 - Mar 2014

- Worked on a virtual training application for oil rig workers:
 - Implemented head-tracking and stereoscopy using 3rd party tools
 - Deployed the application on the <u>largest digital CAVE in Brazil</u>.

Lead Programmer

Decatron

Jan 2012 - Feb 2012

• Worked on an online learning platform for bus transport professionals.

Senior Programmer

OWSE

Feb 2011 - Dec 2011

• Worked on an online maritime logistics system in one of the busiest port terminals in Brazil.

Senior Programmer

Message IT

Jan 2009 - Jan 2011

• Developed the company's application framework and many of the company's internal tools.

Programmer

Message IT

Jan 2007 - Dec 2008

• Worked on an online billing system for Globosat, the biggest Pay-TV company in Brazil.

Programmer

Petrobrás Social Security Foundation

Sep 2004 - Dec 2006

• Worked in the migration of company's loan system to the web.

EDUCATION

Graz, Austria Graz University of Technology

Apr 2014

Ph.D. in Computer Graphics (Not completed)

Rio de Janeiro, Brazil

Pontifical Catholic University

Jan 2012 - Mar 2014

M.Sc. in Informatics, Major in Computer Graphics (GPA: 9,1)

Rio de Janeiro, Brazil

Centro Universitário da Cidade

Jan 2008 - Dec 2011

B.Sc. in Computer Science (Merit scholarship)

Areas of Expertise

Graphics programming, Engine programming, C++, Python, OpenGL, Vulkan, GLSL, HLSL, CUDA, GPGPU, Game development, Software engineering, Test-driven development