

# PEDRO BOECHAT

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## SUMMARY OF QUALIFICATIONS

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### Senior Programmer

- 13 years in the software industry
- 4 years in the academia

### Computer Graphics Scientist

- 2 papers published in Siggraph Asia
- Main research topic: procedural generation

### Indie Developer

- \$15k prize winner in a nationwide game contest in Brazil
- 10+ open source project using different technologies

## WORK EXPERIENCE

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**Lead Programmer** Lab42 Games **Jan 2021 - Present**

- Porting a PC/Console title to Oculus Quest2.

**Senior Programmer** Codemasters **Aug 2018 - Jan 2021**

- Worked on the new world editor used in the F1 game series:
  - 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 - Apr 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.

## WORK EXPERIENCE

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<b>Research Assistant</b>	<b><u>Graz University of Technology</u></b>	<b>2014 - 2016</b>
<ul style="list-style-type: none"><li>• Researched GPU programming techniques applied to procedural generation:<ul style="list-style-type: none"><li>– Co-authored 2 publications in Siggraph Asia (once as <u>first author</u> and another as collaborator).</li><li>– Co-supervised 2 Master's students.</li></ul></li><li>• Developed a procedural scene generator for <u>Bongfish</u> under grant program (Innovationscheck 2016).</li></ul>		
<b>Research Assistant</b>	<b><u>Pontifical Catholic University</u></b>	<b>2012 - 2014</b>
<ul style="list-style-type: none"><li>• Worked on a virtual training application for oil rig workers:<ul style="list-style-type: none"><li>– Implemented head-tracking and stereoscopy using 3rd party tools</li><li>– Deployed the application on the <u>largest digital CAVE in Brazil</u>.</li></ul></li></ul>		
<b>Lead Programmer</b>	<b><u>Decatron</u></b>	<b>2012 - 2012</b>
<ul style="list-style-type: none"><li>• Worked on an online learning platform for bus transport professionals.</li></ul>		
<b>Senior Programmer</b>	<b><u>OWSE</u></b>	<b>2011 - 2012</b>
<ul style="list-style-type: none"><li>• Worked on an online maritime logistics system in one of the busiest port terminals in Brazil.</li></ul>		
<b>Senior Programmer</b>	<b><u>Message IT</u></b>	<b>2009 - 2011</b>
<ul style="list-style-type: none"><li>• Developed the company's application framework and many of the company's internal tools.</li></ul>		
<b>Programmer</b>	<b><u>Message IT</u></b>	<b>2007 - 2009</b>
<ul style="list-style-type: none"><li>• Worked on an online billing system for Globosat, the biggest Pay-TV company in Brazil.</li></ul>		
<b>Programmer</b>	<b><u>Petrobrás Social Security Foundation</u></b>	<b>2004 - 2006</b>
<ul style="list-style-type: none"><li>• Worked in the migration of company's loan system to the web.</li></ul>		

## EDUCATION

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<b>Graz, Austria</b>	<b>Graz University of Technology</b>	<b>2014 - 2016</b>
Ph.D. in Computer Graphics (Not completed)		
<b>Rio de Janeiro, Brazil</b>	<b>Pontifical Catholic University</b>	<b>2012 - 2013</b>
M.Sc. in Informatics, Major in Computer Graphics (GPA: 9,1)		
<b>Rio de Janeiro, Brazil</b>	<b>Centro Universitário da Cidade</b>	<b>2008 - 2011</b>
B.Sc. in Computer Science (Merit scholarship)		

## AREAS OF EXPERTISE

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Procedural generation, Graphics programming, Parallel/distributed programming, Engine programming, C++, C#, Python, Java, Javascript, OpenGL, Direct3D, GLSL, HLSL, CUDA, GPGPU, Software engineering, Test-driven development, People management