

## Bruno Baère Pederassi Lomba de Araujo

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### SUMMARY

I am motivated by challenging tasks and to teach others about what I have learned. My experience as both an academic researcher and as a systems analyst helps me to approach, to model, to understand problems, and to develop a solution. My analytical skills have been proven useful in detecting and preventing bugs and problems in systems modeling.

### EDUCATION

*M.Sc. in Computer Science, Computer Graphics* 2010 - 2012  
Pontifícia Universidade Católica do Rio de Janeiro – PUC-Rio  
Advisor: Bruno Feijó  
Dissertation title: A study on dynamic difficulty adaptivity for games  
Granted 2 years of CAPES scholarship  
GPA/CR: 3.54 / 89%

*B.Sc. in Computer Engineering* 2005 - 2009  
Pontifícia Universidade Católica do Rio de Janeiro – PUC-Rio  
Minor: Advanced studies in Mathematics  
Final project title: A shade tree editor for OGRE materials  
Granted 2 years of CNPQ scholarship

*Language proficiency: Cambridge English FCE grade B2* 2003

### EXPERIENCE

*Product Owner* Feb 2018 - Present  
Instituto Tecgraf – PUC-Rio, Computational Geophysics - v3o2 Project  
Product Owner in v3o2 project. Responsible for the product value of Seismic Tie, Well Log Viewer, and Image Log Segmentation modules of the v3o2 application.

*Senior Systems Analyst / Researcher* Aug 2011 - Feb 2018  
Instituto Tecgraf – PUC-Rio, Computational Geophysics - v3o2 Project  
Worked in v3o2 project, a seismic data visualizer for Petrobras, as C++ developer, and Scrum Master.

- Programmed various parts of the application, using OpenGL, GTK+, and boost.
- Presented with colleagues a 2 day workshop on Scrum for team members.
- Testing and QA using GoogleTest framework, valgrind, and cppcheck.
- Promoted and maintained the system for the upgrade to RedHat 6.
- Documentation of the development environment setup.

*Researcher* Apr 2009 - Aug 2011  
ICAD/Visionlab – PUC-Rio  
Researcher in games, digital entertainment and simulations. C# programmer in a joint project with CENPES and USP. Developed a shade tree editor in C# for building DirectX shaders for the proof tank visualizer project.

*Undergraduate teaching assistant* Mar 2009 - Dec 2009  
Department of Computer Science – PUC-Rio  
Worked as UTA for Introduction to Programming (C language) and Data Structures. Gave extra classes at Saturdays and post-class hours, resolving exercises and exams.

*Intern* Oct 2008 - Mar 2009  
ICA - Laboratório de Inteligência Computacional Aplicada – PUC-Rio  
C# developer. Worked at FxANEEL project, developing part of the user interface with WindowsForms and XML database access. Developed a wrapper for GSLIB library in C# and created the model for library documentation used by the lab.

*Scientific Initiation* Aug 2006 - Aug 2008  
ICAD/Visionlab – PUC-Rio  
Development of a simulation library for Torque Game Engine. Researched game engine use in fluid simulations, programmed in C++ using OGRE rendering engine. Granted 2 years of CNPQ scholarship.

## PUBLICATIONS

Maria das G. de A. Chagas, **Bruno B. P. L. de Araujo**, Waldecir V. Faria, Cezar G. Loureiro, Maria I. M. M. Carmo, Nelson J. Donato, Tathiana S. T. Silva, Victoria D. Maidantchik, Yann L. M. de M. Marques. *Design de Jogos de RPG Digitais: Uma investigação sobre a experiência de jogo*. In: Proceedings of XIV Brazilian Symposium on Games and Digital Entertainment (SBGames 2015), Teresina, Piauí, Brazil, November 2015.

Paula C. Ribeiro, **Bruno B. P. L. de Araujo**, Alberto Raposo. *ComFiM: A Cooperative Serious Game to Encourage the Development of Communicative Skills between Children with Autism*. In: Proceedings of the XIII Brazilian Symposium on Computer Games and Digital Entertainment (SBGames 2014), Rio Grande do Sul, Brazil, November 2014. DOI: 10.1109/SBGAMES.2014.19

**Bruno B. P. L. de Araujo**, Bruno Feijó. *Evaluating dynamic difficulty adaptivity in shoot'em up games*. In: Proceedings of the XII Brazilian Symposium on Computer Games and Digital Entertainment (SBGames 2013), São Paulo, Brazil, October 2013.

## EXTRA-CURRICULAR COURSES

*Fundamentals of Project Planning and Management* 2018  
University of Virginia on Coursera, 8h.

*O setor de games no Brasil: panorama, carreiras e oportunidades* 2018  
Universidade Federal do Rio Grande do Sul, 30h.

*Introduction to User Experience Design* 2017  
Georgia Institute of Technology on Coursera, 10h. Certificate V8K283SJ8Q9T.

*Gamification* 2016  
University of Pennsylvania on Coursera, 48h. Certificate WEVTGH9S3WK5.

*A complexidade sensível: Um paralelo entre videogames e arte* 2016  
Universidade Estadual de Campinas on Coursera, 14h. Certificate EC8XZEZZ26HY.

*Oil & Gas Industry Operations and Markets* 2016  
Duke University on Coursera, 10h. Certificate WEVTGH9S3WK5.

*Petroleum geology for non-geologists* 2014  
ABGP - The Brazilian Association of Petroleum Geologists, 20h.

**COMPUTER  
SKILLS**

Languages: C, C++, C#, Lua.

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**CERTIFICATIONS**

*Certified Scrum Product Owner*  
Certifier: Scrum Alliance License: 000304959

Valid: Mar 2014 - Mar 2020

*Certified Scrum Master*  
Certifier: Scrum Alliance License: 000304959

Valid: Jan 2014 - Mar 2020

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**EXTRA-  
CURRICULAR  
ACTIVITIES**

*Co-organizer of PUC-Rio's Global Game Jam*  
Helped organize PUC-Rio's Global Game Jam.

Jan 2018

*Volunteer reviewer for Entertainment Computing*  
Volunteer reviewer for Entertainment Computing, an Elsevier journal. ISSN 1875-9521.

2016 - Present

*Researcher at PUC-Rio's Game Design Research Group*  
Associate researcher in the Arts & Design Department research group under prof. Maria das Graças Chagas advisory. Themes include player-NPC relationship and artificial intelligence.

2013 - Present

*SBGames 2011's Independent Games Festival contestant*  
Contestant with the game Lights Out. Awarded with the third place in people's choice in the Art Game category.

2011

<https://sites.google.com/site/bbaere/projetos-1/lights>

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**GAMES**

*Lights Out*  
A puzzle-like art game for 2 players made in GameMaker 8.1. Presented at SBGames 2011, FILE Games 2012, Festival Games Brasil 2013. Role: programmer (GameMaker Scripting Language) and 2D artist.

2011

*Seu Espião Safado!*  
A print-and-play dice game for 3 players where 2 agents are trying to uncover a spy's secret (Brazilian Portuguese only). Role: game designer.

2011

*You Are Trash!*  
A Java 2D game mix of puzzle and platformer, made in the Gamera project. Role: programmer and game designer.

2009

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**OTHER  
INFORMATION**

Personal homepage: <http://killerasus.github.io>  
GitHub: <https://github.com/killerasus>  
Lattes curriculum: <http://lattes.cnpq.br/0738342776987656>