Bruno Baère Pedrazzi Lomba de Araujo

mail: bruno.baere@gmail.com phone: 🇧🇷 +5521996826336 / 🇨🇦 +14385261793

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.

PROFESSIONAL EXPERIENCE

Technical Lead   Feb 2022 - Present
Instituto Tecgraf – PUC-Rio, Computational Geophysics Group
Tech lead in v3o2 project. Responsible for software architecture decisions for one of the teams. Programming in C++ 17.

Senior Systems Analyst   Feb 2020 - Feb 2022
Instituto Tecgraf – PUC-Rio, Computational Geophysics Group
C++ developer in v3o2 project. Programming in C++ 17 using Qt, GTK+, boost on Linux CentOS 7. Version control in git and CI/CD with GitLab. Worked in a remote (work from home) environment, using VPN and SSH, coordinating using Jira and Slack.

Product Owner   Feb 2018 - Jan 2020
Instituto Tecgraf – PUC-Rio, Computational Geophysics Group
Product Owner in v3o2 project. Responsible for the product value of various parts of the software dealing with geology and geophysics. Responsibilities included: understanding the client's needs, proposing a solution, creating user stories for the development team, and managing client expectations. I also wrote and maintained the product manual for the parts I was responsible for, and helped restructuring the recruitment interview process.

Senior Systems Analyst / Researcher   Aug 2011 - Feb 2018
Instituto Tecgraf – PUC-Rio, Computational Geophysics Group
C++ developer in v3o2 project, a seismic and well data visualizer for Petrobras running on RedHat/CentOS 5 using OpenGL, GTK+, boost, and Qt. For QA used GoogleTest framework, valgrind, and cppcheck. I organized and wrote the documentation of the development environment setup for home office, and worked on the upgrade to RedHat/CentOS 6. I also presented with colleagues a 2-day workshop on Scrum for team members.

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# and Windows GDI 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 on 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. 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 the 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.

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 shoot'em up games
Granted 2 years of CAPES scholarship
GPA: 3.54 (4.0 scale)

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

**EXTRA-
CURRICULAR
COURSES**   *Programming with Google Go Specialization*   2021
University of California, Irvine on Coursera, 24h.

Data Science Math Skills   2021
Duke University on Coursera, 13h.

Digital Product Management: Modern Fundamentals   2020

University of Virginia on Coursera, 16h.

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.

Gamification   2016
University of Pennsylvania on Coursera, 48h.

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

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

Geologia do petróleo para não-geólogos   2014
ABGP - Associação Brasileira de Geólogos do Petróleo, 20h.

CERTIFICA-TIONS

Certified Scrum Product Owner   Valid: Mar 2014 - Mar 2024
Certifier: Scrum Alliance License: 000304959

Certified Scrum Master   Valid: Jan 2014 - Mar 2024
Certifier: Scrum Alliance License: 000304959

EXTRA-CURRICULAR ACTIVITIES

Co-organizer of PUC-Rio's Global Game Jam   Jan 2018, Jan 2020
Helped organize PUC-Rio's Global Game Jam.

Volunteer reviewer for Entertainment Computing   2016 - Present
Volunteer reviewer for Entertainment Computing, an Elsevier journal. ISSN 1875-9521.

Researcher at PUC-Rio's Game Design Research Group   2013 - Present
Associate researcher in the Arts & Design Department research group under prof. Maria das Graças Chagas advisory. Themes include player-NPC relationship and artificial intelligence.

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

GAMES

Lights Out   2011
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.

Seu Espião Safado!   2011

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.

You Are Trash!   2009
A Java 2D game mix of puzzle and platformer, made in the Gamerama project. Role: programmer and game designer.

RPG   *Encontros Aleatórios: O Bando da Pena Vermelha*, In: Forbidden Magazine #12, Buró Brasil, 2021. Link

Encontros Aleatórios: A Estalagem Lebre Confortável, In: Forbidden Magazine #9, Buró Brasil, 2021. Link

Ser Mago pra Quê?, In: Forbidden Magazine #4, Buró Brasil, 2020. Link

Zen e a Arte de Armadilhas, In: Forbidden Magazine #2, Buró Brasil, 2020. Link

Delírios de X'agyg: Episódio 1 - A Balada de Baleem Altrafer, Editor: Rafael Beltrame, RedBox Editora, 2017. Link

---

OTHER   Personal homepage: `http://killerasus.github.io`
INFORMATION   LinkedIn: `https://www.linkedin.com/in/brunobaere/`