

# Tiago Brizolara da Rosa - Curriculum Vitae

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## LANGUAGES

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Portuguese	Native - Brazil
English	Fluent
Spanish	Native - Latin America (Uruguay)
French	Intermediate - 2 years living in France

## EDUCATION

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2018	Started PhD in Informatics, <i>Université Bretagne Sud (UBS), France</i>
2006	Master in Physics, <i>Federal University of Santa Catarina (UFSC-SC), Brazil</i>
2011-interrupted (5 semesters)	Bachelor in Music Composition, <i>State University of Maringá (UEM-PR), Brazil</i>
2012	2-year Specialization in Digital Games Development, <i>Pontifical Catholic University of Paraná (PUC-PR), Brazil</i>
2004	Bachelor in Physics, <i>Federal University of Santa Catarina (UFSC-SC), Brazil</i>

## JOB POSITIONS

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2017-2018	Teacher in technological graduation in Digital Games at Faculdade de Tecnologia Nova Palhoça (FATENP-SC), Brazil.  Disciplines of Artificial Intelligence for Games, Audiovisual Production, and Innovative Topics.
2017-2018	Consultant in Research & Development in medical software for PurView Co., LLC, USA. 24 hours/week. Working with C/C++ and Obj-C in the Horos ( <a href="http://www.horosproject.org">www.horosproject.org</a> ) medical image viewer.
2010-2017	Consultant in Research & Development in medical software for <a href="#">Micromar</a> Ltda, Brazil. 40 hours/week.  Worked with C/C++ in stereotactic and neuronavigation systems.
2009-2010	C/C++ Programmer. Step Software Tecnologia e Projetos Ltda, Brazil. 44 hours/week
2007-2008	Consultant in Research & Development in medical physics for Micromar Ltda, Brazil. 40 hours/week
2003-2004	FAPUE scholarship at Federal University of Santa Catarina (UFSC-SC), Brazil. Modalidade: bolsa de ensino. 20 hours/week

## COURSES AND WORKSHOPS

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ongoing	Real-Time Audio Signal Processing in Faust, <i>Kadenze Inc.</i>
ongoing	Physics-Based Sound Synthesis for Games and Interactive Systems, <i>Stanford University on Kadenze Inc.</i>
2018	Orchestration I, <i>Berklee College of Music</i> Berklee Online. Valid as college credit. 12 weeks.
2017	Music Composition for Film and TV, <i>Berklee College of Music</i> Berklee Online. Valid as college credit. 12 weeks.
2017	Introduction to Music Production, <i>Berklee College of Music on Coursera</i> . Verified certificate: <a href="https://www.coursera.org/verify/GHM8JGBA72Y">https://www.coursera.org/verify/GHM8JGBA72Y</a> 7 weeks, ~35 hrs.
2016	Machine Learning for Musicians and Artists, <i>Goldsmiths University of London on Kadenze Inc.</i> Verified certificate: <a href="https://www.kadenze.com/certificates/verified/3126F592">https://www.kadenze.com/certificates/verified/3126F592</a> 7 weeks, ~35 hrs.
2014	Creative, Serious and Playful Science of Android Apps, <i>University of Illinois - Urbana-Champaign at Coursera</i> . Verified certificate: <a href="https://www.coursera.org/account/accomplishments/certificate/DYZ8EJCZRO">https://www.coursera.org/account/accomplishments/certificate/DYZ8EJCZRO</a> 11 weeks.
2013	Creative Programming for Digital Media & Mobile Apps, <i>University of London on Coursera</i> . Verified certificate: <a href="https://www.coursera.org/account/accomplishments/certificate/33HHLCNTXY">https://www.coursera.org/account/accomplishments/certificate/33HHLCNTXY</a> . 6 weeks.
2013	LAPPSO-UEM Colloquium. <i>Maringá State University (UEM-PR), Brazil.</i> <ul style="list-style-type: none"><li>● Workshop of Pure Data. 6 hrs.</li><li>● Workshop of Super Collider. 6 hrs.</li><li>● Workshop on audio spatialization. 3 hrs.</li></ul>
2013	Mini-course on wind instruments from everyday materials (Mini-curso sobre construção de instrumentos de sopro a partir de materiais comuns). <i>Maringá State University (UEM-PR), Brazil.</i> 5 hrs.

## LECTURER IN COURSES/WORKSHOPS

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2017	15 hrs course on creative computing with Processing ( <i>Computação Criativa com Processing</i> ). <i>O Sítio Arte, Educação, Coworking, Florianópolis-SC.</i>
2017	Workshop on Pure Data, <i>Noite de Música Nova. Armazém Cultural, Florianópolis-SC.</i>
2017	3 hrs Workshop on Pure Data, <i>Experimenta UFSC</i> <i>Tarrafa Hacker Clube, UFSC-SC, Florianópolis-SC.</i>
2016	2 hrs Workshop on Pure Data at 1st R.I.S.C.O. - Reunião Inusitada de Som, Computadores e Outros. <i>MIS-SC (Museum of Image and Sound), Florianópolis, Brazil.</i>

## SOME ACADEMIC ACTIVITY

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- 2020 Tiago Brizolara, Sylvie Gibet, and Caroline Larboulette. 2020. Elemental: a Gesturally Controlled System to Perform Meteorological Sounds. *Proceedings of the International Conference on New Interfaces for Musical Expression (NIME)*, Birmingham City University, pp. 470–476. [https://www.nime.org/proceedings/2020/nime2020\\_paper90.pdf](https://www.nime.org/proceedings/2020/nime2020_paper90.pdf)
- 2020 2,5 hrs workshop Introduction to Sound Computing with Pure Data, *inside Introduction to Recording discipline* taught by Dr. Flora Holderbaum, University of Santa Catarina State (UDESC), Brazil.
- 2019 Tiago Brizolara da Rosa, Sylvie Gibet, Caroline Larboulette. Elemental: Contrôle des Sons Naturels par le Mouvement. Public demonstration at *Journée Science et Musique. IRISA & Inria in collaboration with Université Rennes 1, CNRS and Nicomaque. Université Rennes 1.*
- 2019 Tiago Brizolara da Rosa, Sylvie Gibet, Caroline Larboulette. Quand Le Geste Contrôle le Vent, la Pluie et la Tonnerre. Public demonstration at *Fête de la Science, Université Bretagne Sud.*
- 2019 International mobility grant from Université Bretagne Sud (France) to the city of Recife, Brazil, for collaboration with researchers João Tragtenberg, Giordano Cabral (Federal University of Pernambuco - UFPE), and the MusTIC research team. Funded by Région Bretagne and Département du Morbihan.
- Other than research and meetings, attended:
- Event "Workshop MusTIC: Tecnologias Criativas" at UFPE:
    - Seminar "Progress and Challenges for Music Generation by Deep Neural Networks", by Jean-Pierre Briot (CNRS, LIP6)
    - Work group with MusTIC members and other developers of creative technologies
  - Event "V CIn Innovation Expo" at UFPE:
    - introductory workshop "Criando interfaces musicais com Arduino"
    - jam session with new interfaces for music expression
- And taught workshops:
- Introduction to Musical Computing with Pure Data (*Introdução à Computação Musical com Pure Data*). Center of Informatics (UFPE).
  - Machine Learning in Interactivity - Introduction to Wekinator (*Aprendizado de Máquina na Interatividade - Introdução ao Wekinator*). Center of Informatics (UFPE).
- 2019 Assistant in project of 1st year Masters students in Informatics: "SONIC 2". *Université Bretagne Sud, France.*
- 2019 Assistant in project of 1st year Masters students in Informatics: "SMOKE 2". *Université Bretagne Sud, France.*
- 2018 2 hrs seminar/workshop Introduction to Sound Computing with Pure Data, *Master's Conference teaching unit (lectures supervised by prof. Nicolas Courty), Université Bretagne Sud*
- 2018 3 hrs workshop on creative computing with Processing (*Computação Criativa com Processing*). *Fatenp-SC, Palhoça, SC, Brazil.*
- 2015 ROSA, Tiago; MORITZ, Marcos. SoMo: Um Instrumento Musical baseado em Movimento - Características Estéticas e Técnicas e potenciais Usos [Full paper], *15th Brazilian Symposium on Computer Music – SBCM, Campinas-SP, Brazil.*  
<http://compmus.ime.usp.br/sbcm2015/files/proceedings-print.pdf>
- 2013 Workshop on games in music education, *II Encontro com Educadores Musicais - State University of Santa Catarina (UDESC), Florianópolis, Brazil.*

- 2013 10 hrs extension course on digital games in music education, alongside with Dr. Andréia Veber. *Maringá State University (UEM-PR), Brazil*.  
Technologies involved in online music games; availability in classroom; cataloguing material; developing proposals for didactic material.
- 2013 6hrs Workshop of Processing, *III Colloquium of LAPPSO-UEM. Maringá State University, Brazil*.
- 2013 Second reader of undergraduate thesis.  
*Ensino de Música na Era Digital: O Jogo Eletrônico como Ponto de Partida*.  
Student: Willy Silva; Advisor: Andréia Veber, Course: Music Education. Music Department, Maringá State University (UEM-PR), Brazil.
- 2013 1st prize in undergraduate texts contest, *11º Fórum de Extensão E Cultura da UEM. State University of Maringá, Brazil*.  
Roda de Choro: Música Brasileira Informal e Refinada. Event promoted by Diretoria de Extensão of UEM (*State University of Maringá, Brazil*).
- 2012 VEBER, Andréia; ROSA, Tiago Brizolara da. Jogos digitais online e ensino de música: propostas para a prática musical em grupo. **Música na Educação Básica**. Londrina, v. 4, n. 4, novembro de 2012.
- 2011 Participant, X Brazilian Symposium on Computer Games - SBGames. Salvador-BA, Brazil.
- 2011 2nd place in independent games contest. Game: Silent Joe. Category: web games.
- 2010 Participant, IX Brazilian Symposium on Computer Games - SBGames. Florianópolis – SC.
- 2009 Oral Presentation, XI Congresso Brasileiro de Radioterapia / XI Jornada Brasileira de Física Médica (XI Brazilian Colloquium in Medical Physics)  
· Resultados de um Sistema de Planejamento de Radiocirurgias Estereotáxicas com Aceleradores Lineares e Feixes Cônicos (Results from a Planning System of Stereotactic Radiosurgery with Linear Accelerators and Conic Beams).

## PORTFOLIO / ONGOING PROJECTS

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### R&D in the health industry:

- Developed a radiosurgery planning system during the end of my graduation (involving physicist Patrícia Morales and with a FAPEU scholarship supervised by Dr. Nelson Canzian, in partnership with brazilian company TechLab - nowadays Pixeon) and finished and evaluated during my Masters (dissertation at <https://repositorio.ufsc.br/xmlui/handle/123456789/89402>)
- Worked on the development of the commercial softwares MSA, AimPlan (both for stereotactic neurosurgery) and AimNav (neuronavigation, brain atlas), with Micromar Ltda (Brasil)
- Gave support on the DICOM imaging software Horos, with PurView LLC (USA)

### Interactivity, Creative Computing, Arts, Music Composition, Audio Design

- Elemental: new interface for music expression controlled via inertial + electromyographic sensors weared on the performers' arms. Conceived by me, programmed in C++ and Pure Data. Part of my PhD at UBS. <https://brizolara.github.io/elemental/>
- SoMo: digital musical instrument with high responsiveness and visual feedback, based on movement in front of a fast câmera. Full source code (Processing and Pure Data), paper and tutorial at <https://bitbucket.org/mmoritz/somo>. Partnership with Marcos Moritz.
- Compositions in streaming: <https://open.spotify.com/artist/7jX4pMvEFiYhxrCWVi8wKT>
- Full portfolio and landing page at <http://tiagobrizolara.com>