Vinicius Graciano Santos

CONTACT
INFORMATION

🌐 vgracianos.github.io

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in Linkedin

🐦 Twitter

EXPERIENCE

3D Programmer, Ubisoft: Québec City, QC - Canada.   **10/2021 - Current**

Working on rendering advanced atmospheric effects such as clouds, rain, and fog for Assassin's Creed: Codename Red/Hexe.

Senior Graphics Engineer, Wildlife Studios: SP - Brazil.   **10/2018 - 09/2021**

Worked on several mobile games released on the App Store and Google Play, such as Zoo Battle Arena, Sniper 3D, and War Machines. I led the graphics development team on tasks such as building rendering pipelines, shaders, and tools for artists; as well as refactoring large parts of our codebase for efficiency.

Graphics Programmer, Hoplon: Florianópolis, SC - Brazil.   **01/2017 - 09/2018**

Developed Heavy Metal Machines, a free-to-play, competitive MOBA available on Steam. I was responsible for shader programming and general algorithmic optimizations in subsystems such as Networking and AI.

Assistant Professor, Digital Games Department, Pontifical Catholic University of Minas Gerais (PUC Minas): Belo Horizonte, MG - Brazil.   **02/2015 - 07/2016**

Offered introductory courses on *Computer Graphics*, *Game Networking*, *Game Physics Programming*, and *Graph Algorithms*.

R&D, Invent Vision: Belo Horizonte, MG - Brazil.   **12/2014 - 06/2015**

Development of computer vision solutions applied to ironworks (siderurgy) problems.

R&D, Vale Institute of Technology: Nova Lima, MG - Brazil.   **03/2014 - 11/2014**

Viability study on aeromagnetic surveys by deploying autonomous aerial vehicles.

Researcher, Verlab, Computer Science Department, UFMG   **01/2010 - 01/2014**

Research on swarm robotics as an undergraduate and graduate student.

Teaching Assistant, COTEMIG: Belo Horizonte, MG - Brazil **06/2005 - 05/2006**.

Basic instructional responsibilities on topics such as C/C++, Delphi, Java, and SQL.

EDUCATION

Federal University of Minas Gerais (UFMG): Belo Horizonte, MG - Brazil

Master of Science in Computer Science   **Conclusion: 01/2014**

Thesis: Segregative Behaviors in Swarm Systems

Advisor: Prof. Dr. Luiz Chaimowicz

- Research and development of control models in swarm robotics.

Bachelor of Computer Science   **Conclusion: 06/2011**

Honors Student (silver medal)

PUBLICATIONS V. G. Santos, A. G. Pires, R. J. Alitappeh, P. A. F. Rezeck, L. C. A. Pimenta, D. G. Macharet, and L. Chaimowicz. *"Spatial segregative behaviors in robotic swarms using differential potentials"*. Swarm Intelligence, pp. 1—26, 2020.

V. G. Santos, L. C. A. Pimenta, and L. Chaimowicz. *"Segregation of multiple heterogeneous units in a robotic swarm"*. Proceedings of the IEEE International Conference on Robotics and Automation (ICRA), pp. 1112–1117, 2014.

V. G. Santos and L. Chaimowicz. *"Cohesion and segregation in swarm navigation"*. Robotica 32(2). Cambridge University Press, pp. 209–223, 2014.

V. G. Santos, M. F. M. Campos, and L. Chaimowicz. *"On segregative behaviors using flocking and velocity obstacles"*. Distributed Autonomous Robotic Systems. Springer Tracts in Advanced Robotics 104. Springer Berlin Heidelberg, pp. 121–133, 2014.

V. G. Santos e L. Chaimowicz. *"Planejamento hierárquico para enxames robóticos baseado na exploração do espaço de configurações"*. Revista Eletrônica de Iniciação Científica 12(3). CTIC, 2012.

V. G. Santos and L. Chaimowicz. *"Hierarchical congestion control for robotic swarms"*. Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), pp. 4372–4377, 2011.

V. G. Santos e L. Chaimowicz. *"Uso de hierarquias no controle de enxames robóticos"*. Anais do X Simpósio Brasileiro de Automação Inteligente, pp. 557–562, 2011.

SKILLS

Languages

English: reads well, writes well, and speaks well

- TOEFL iBT Score: 108
  Reading: 29/30, Listening: 29/30, Speaking: 23/30, and Writing: 27/30

French: basic reading and writing

Portuguese: native language

Computer

Knowledge and practical use of C/C++ and MATLAB

Familiarity with OpenGL, OpenCV, and CUDA APIs

Working knowledge of Unity 3D, C#, Python, SQL, and LaTeX

AWARDS

Joint Conference on Robotics and Intelligent Systems, São Paulo University (USP): São Carlos, SP - Brazil.

Best MSc. Thesis in Robotics at CTDR–2014 (national level) **10/2014**

XXXII Congress of the Brazilian Computer Society , Federal University of Paraná (UFPR): Curitiba, PR - Brazil.

Best Undergraduate Research Work in Computer Science (national level) **07/2012**

XX Scientific Research Week, Federal University of Minas Gerais (UFMG): Belo Horizonte, MG - Brazil.

Best Undergraduate Research Work in Exact Sciences (state level) **10/2011**

Graduation, Federal University of Minas Gerais (UFMG): Belo Horizonte, MG - Brazil.

Honors Student Silver Medal **07/2011**