

Leonardo Pavanatto Soares

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Objective Statement

Doctoral student seeking a research summer internship position in the field of Mixed Reality, 3D User Interfaces and Human-Computer Interaction.

Education

Ph.D. in Computer Science

Aug 2019 - Current

Virginia Tech, GPA: 4.0/4.0

- **Concentration:** Human-Computer Interaction (Advisor: Doug Bowman)

M.Sc. in Computer Science

Mar 2019

Pontifical Catholic University of Rio Grande do Sul (PUCRS), GPA: 9.32/10.0

- **Thesis:** *3D Modeling of Large Structures in Augmented Reality* (Advisors: Marcio Pinho, Doug Bowman)
- **Honors:** Academic excellence fellowship recipient

B.Eng. in Computer Engineering

Dec 2016

Pontifical Catholic University of Rio Grande do Sul (PUCRS), GPA: 8.82/10.0

- **Thesis:** *Evaluating the Efficiency of an Ego-exocentric Technique for Cooperative Manipulation in Virtual Environments*
- **Honors:** Highest GPA of class; BSMP scholarship recipient
- **Study abroad:** Illinois Institute of Technology (IIT), GPA: 3.87/4.0

Experience

Virginia Tech - 3DI Group

Feb 2018 - Aug 2018

Research Scholar

- Designed an AR application for situated modeling in architecture, using Unity 3D (C#) and Microsoft HoloLens.
- Evaluated different modeling approaches through user studies, which were published in ACM SUI '19.

PUCRS - GRV

Mar 2017 - Feb 2019

Graduate Research Assistant (multiple projects)

- Evaluated methods of interaction for an AR handheld game with behavioral animation of virtual characters.
- Designed an application to present Microsoft PowerPoint content inside a virtual environment to a remote audience.
- Oriented undergraduate students working on scientific projects.

Duke University - DiVE

May 2015 - Jul 2015

Research Scholar

- Designed a technique for asymmetric cooperative object manipulation in virtual reality, using Unity 3D (C#), Oculus Rift, and UDP/IP network communication.
- Led the development team, and presented our solution at the IEEE 3DUI Contest '16.

PUCRS - GRV

Apr 2012 - Dec 2016

Undergraduate Research Assistant (multiple projects)

- Designed games for the Microsoft Kinect using XNA (C#) that were used by elderly people with mild cognitive impairment as part of a neurorehabilitation study.
- Designed and deployed an interface for 6 DOF tracking of a conductor's baton during a live orchestral performance.
- Developed an application for creating digital sculptures using handheld AR

Main Publications

Soares, Leonardo Pavanatto, Doug A. Bowman, and Márcio Sarroglia Pinho. "Evaluating the Impact of Point Marking Precision on Situated Modeling Performance." *2019 Symposium on Spatial User Interaction (SUI)*, pp.10:1-10:5. ACM, 2019. [doi: 10.1145/3357251.3357586](https://doi.org/10.1145/3357251.3357586)

Soares, Leonardo Pavanatto, Thomas Volpato de Oliveira, Vincenzo Abichequer Sangalli, Márcio Sarroglia Pinho, and Regis Kopper. "Collaborative hybrid virtual environment." In *2016 IEEE Symposium on 3D User Interfaces (3DUI)*, pp. 283-284. IEEE, 2016. [doi: 10.1109/3DUI.2016.7460081](https://doi.org/10.1109/3DUI.2016.7460081)