

Lucas S. Althoff

PhD. Student* / Research Engineer**

*PPGI - University of Brasília, Computer Science Department

**UFR Sciences Fondamentales et Appliquées Université de Poitiers

[Website](#)

[Complete CV](#)

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Research Interest

- Virtual reality, user experience, data analytics, machine-learning;
- Multimedia quality assessment, image processing, visual attention;
- Cinematography, video editing, video storytelling;

Education

- **Ph. D. in Computer Science.** Computer Science Department, UnB. February/19 – Present.
- **M.Sc in Physics Education.** National Mastership Physics Education Program, UnB July/16 – December/18.
- **Major in physics.** UCB. July/16 - July/17.
- **B.Sc. in Computational Physics.** UnB. August/09 - July/14.

Awards

- Best Dissertation Paper in Proeb/Capes from the M.Sc Program MNPEF, 2018.
- Best paper submitted at XXIV IJCIEOM 2018, the paper included as a book chapter.

Research Position Held

1. **Research engineer software engineering - XLIM lab, Jan/2022 – Aug/2022**
Develop solutions in the field of immersive multimedia subjective quality assessment. Support research planning subjective experiments, and processing analytics for experiments.
2. **Perceptually-Efficient Streaming of 360-degrees Edited Video - UnB – Research Assistant, 2020 – 2022.**
Research on 360-degree video processing, deep learning models, saliency prediction, 360-degree video streaming, subjective visual experiments, and visual quality assessment.
3. **Cross-border Observatories for the Environment, Climate and Vector Diseases – LMI – Research Assistant, 2021 – 2022**
Perform Analytics and Extract, Transform and Load (ETL) procedures for cross-border epidemiological data integration and harmonization, with the application to malaria in the cross-border area between French Guiana and Brazil.
4. **Project MAP - UnB– Research Assistant, 2018 – 2020.**
Post-graduate research assistant. Integrating a multidisciplinary project. I was a research team leader in the applied field of 4.0 industry technological solutions. Also responsible for research planning, and project management. development of new methodologies.

Selected Publications

- [1] Lucas S. Althoff, Alessandro Rodrigues, and Mylène C. Q. Farias, **Towards the Effects of Alignment Edits on the Quality of Experience of 360 Videos** ArXiv, abs/ (2022).
- [2] Dario D. Morais, Lucas S. Althoff, Ravi Prakash, Marcelo M. Carvalho, and Mylène C. Q. Farias. **A Content-Based Viewport Prediction Model** Electronic Imaging (2021).
- [3] José Antonio Siqueira de Cerqueira, Lucas S. Althoff, Paulo De Almeida, and Edna Dias Canedo, **Ethical Perspectives in AI: A Two-folded Exploratory Study From Literature and Active Development Projects**, HICSS (2021).
- [4] Ari Melo Mariano, Ana Carla Bittencourt Reis, Lucas dos Santos Althoff, and Laís Bandeira Barros. **A bibliographic review of Software Metrics: applying the Consolidated Meta-Analytic Approach**, In: Springer Proceedings in Mathematics & Statistics (PROMS, XXIV IJCIEOM 2018, pg. 243-256).
- [5] Lucas S. Althoff, Camila M. A. Silva, Patrícia M. Milhomem, and Ana Carla B. Reis. **Exploring Active Learning Resources for Team Training in a Multidisciplinary Research Project**, PAEE/ALE proceedings, 2019.

Participation as Research Reviewer

- Voluntary reviewer (IEEE VR, SVR 2021, VRST 2020)
- Voluntary at Society for Imaging Science and Technology (EI2022)

Complementary Skills

- Programming Languages: Python, R, Pytorch, Javascript, C++;
- Extra tools: Adobe Premiere, Latex, Unity;
- English professional proficiency - B2 TOEFL\itp – 2018 (Listening Comprehension: 60, Structure & Written Expression: 58, Reading Comprehension: 57, Total score: 583);

Graduation Defense Committee Member

- **Analysis of Saliency Models for 360° Videos**, Bernardo Magalhães Morales, Part of Electrical Engineering Conclusion Graduation, University of Brasília, 2019. Defense committee members: Mylène C. Q. de Farias (Advisor), João Luiz Azevedo de Carvalho, Lucas dos S. Althoff.
- **Annotation of Regions of Interest for 360° Videos**, Myllena de Almeida Prado, Part of Mecatronic Engineering Conclusion Graduation, University of Brasília, 2021. Defense committee members: Mylène C. Q. de Farias (Advisor), João Luiz Azevedo de Carvalho, Lucas S. Althoff.
- **Protótipo WebSig para Suporte à Produção Cartográfica do Laboratório de Geografia, Ambiente e Saúde da Universidade de Brasília**, Guilherme Felix Menezes, University of Brasília 2020. Defense committee members: Helen Gurgel (Advisor), Emmanuel Roux, Lucas S. Althoff.