Lesandro Ponciano

mail: lesandro.ponciano@gmail.com
Web Page: https://lesandrop.github.io/site/
RCID: https://orcid.org/0000-0002-5724-0094

Expertise: Collaborative Systems • HCI • Data Science • e-Science • Citizen Science • Human Computation
Experience: Quantitative Research • System Simulation • Data Modeling • GQM Method • Data Mining
Languages: Portuguese (native) • English (advanced) • Spanish (basic)

Education

PhD. in Computer Science (**2012 - 2015**) • Federal University of Campina Grande, Brazil
- Thesis: Human Computation from the Perspective of the Engagement and Credibility of Humans, and the Replication of Tasks
- Advisor: Francisco Brasileiro, PhD. Newcastle University (UK), fubica@dsc.ufcg.edu.br
- Grade Point Average: 10.0/10

M.Sc. in Computer Science (**2009 - 2011**) • Federal University of Campina Grande, Brazil
- Thesis: Assessing Energy Saving Strategies in Peer-to-Peer Opportunistic Grids
- Advisor: Francisco Brasileiro, PhD. Newcastle University (UK), fubica@dsc.ufcg.edu.br
- Grade Point Average: 9.0/10

B.Sc. in Information Systems (**2005 - 2008**) • Pontifical Catholic University of Minas Gerais, Brazil
- Grade Point Average: 8.9/10

Work Experiences

Associate Professor (02/2016 - now) • Pontifical Catholic University of Minas Gerais, Brazil
- Programs: Information Systems, Software Engineering, Electrical Engineering, Computer Science

Researcher (02/2016 - 12/2016) • Laboratory of Distributed Systems, Brazil
- Sponsored by Hewlett-Packard (HP) and supervised by Andrey Brito, andrey@computacao.ufcg.edu.br
- Technical skills: R, Python, Internet of Things (IoT), survey design and validation

Analytics Tutor (01/2012 - 05/2013) • Federal University of Campina Grande, Brazil
- Analytics Training Program sponsored by Hewlett-Packard (HP) Brazil
- Supervisor: Nazareno Andrade, nazareno@computacao.ufcg.edu.br
- Technical skills: R, Python, Data Visualization, Statistics

Scientific Awards

2021	**Best reviewers of the 1st Brazilian Symposium on Computer Education (EduComp)**, Brazilian Computer Society.
2020	**Honorable Mention in Exact Sciences as advisor of undergraduate research** (student Gabriel Moreira Chaves), 28th Scientific Initiation Seminar, Pontifical Catholic University of Minas Gerais.
2019	**Special Recognitions for Outstanding Reviews**, ACM CHI 2019
2018	**Honorable Mention in Exact Sciences as advisor of undergraduate research (**student Arthur V. Soares Pereira), 26th Scientific Initiation Seminar, Pontifical Catholic University of Minas Gerais.

2017	**Third best paper of the Brazilian Symposium on Collaborative Systems (SBSC),** paper "Analysis of the Popularity, Visibility and Activity of Different Types of Robots on the Social Network Twitter", Brazilian Computer Society.
2014	**Student Scholarship at the 10th IEEE International eScience Conference**, IEEE eScience International Conference.
2011	**Best Computer Science Master Thesis - Finalist** (one of 10) in Brazil, Brazilian Computer Society
2010	**Honorable Mention for the paper "Analysis of Green Computing Strategies in Opportunistic Computational Grids"**, XXVIII Brazilian Symposium on Computer Networks and Distributed Systems.
2008	**Honorable Mention for the work "Analysis of Classification and Clustering Algorithms in the Discovery and Prediction of the Behavior of Parallel Tasks"**, 16th Scientific Initiation Seminar, Pontifical Catholic University of Minas Gerais.
2007	**Honorable Mention for the article "Technique for Characterization of Workload of Parallel Machines to Extract Information Used by a Reconfigurable Task Scheduler",** Scientific Initiation Papers Competition, VIII Symposium on Computer Systems (WSCAD-CSS). Brazilian Computer Society.
2007	**Honorable Mention for the work "Proposal, Implementation and Evaluation of a Workload Characterization Technique for Parallel Machines for the Extraction of Information Used by a Scheduler",** 15th Scientific Initiation Seminar, Pontifical Catholic University of Minas Gerais.
2006	**Honorable Mention for the work "Advancement and Exclusion: Two Faces of the Digital Age, A Sociotechnical Analysis of TIs"**, 14th Scientific Initiation Seminar, Pontifical Catholic University of Minas Gerais.

Teaching Awards

2021	**Honored Professor awards**, conferred by students at their commencement ceremony. Information System Program. Pontifical Catholic University of Minas - Contagem.
2020	**Honored Professor awards**, conferred by students at their commencement ceremony. Information System Program. Pontifical Catholic University of Minas - Barreiro.
2019	**Honored Professor awards**, conferred by students at their commencement ceremony. Information System Program. Pontifical Catholic University of Minas - Barreiro.
2019	**Outstanding Teaching Performance**, conferred by Pontifical Catholic University of Minas Gerais
2018	**Honored Professor awards**, conferred by students at their commencement ceremony. Information System Program. Pontifical Catholic University of Minas - Contagem.
2018	**Outstanding Teaching Performance**, conferred by Pontifical Catholic University of Minas Gerais
2008	**Master's dissertation approved with distinction,** Graduate Program in Computer Science, Center for Electrical Engineering and Informatics. Federal University of Campina Grande.
2008	**Silver medal for the second best academic performance throughout the Bachelor's Degree in Information Systems**, Pontifical Catholic University of Minas Gerais (PUC Minas)

Peer-reviewed Conference and Journal Publications [Published in English]

[1]   Ramos, H.; Fonseca, M.; **Ponciano, Lesandro**. Modeling and Evaluating Personas with Software Explainability Requirements. In *VII Iberoamerican Conference on Human-Computer Interaction*. 2021. Springer. pre-print: https://arxiv.org/abs/2108.04640   Full-paper

[2]	Nelson, M. A; **Ponciano, Lesandro**, "Experiences and insights from using Github Classroom to support Project-Based Courses". In 2021 *Third International Workshop on Software Engineering Education for the Next Generation (SEENG)* at ICSE-JSEET. 2021. pp. 31-35. IEEE. DOI: 10.1109/SEENG53126.2021.00013	Full-paper
[3]	PILAND, N.; VARESE, M.; SOACHA, K.; **Ponciano, Lesandro**; CASTANEDA, A.; ALVAREZ, H. G.; CUEVA, R.; DONOFRIO, G.; ESPITIA, J. E.; JURADO, C.; KOVACH, A.; LUIS, C.; MALDONADO, W.; CALLEJAS, S. M.; PIERA, J.; PLOS, A.; RESTREPO, J. F ; SANCHEZ, M. ; SANDOVAL, M. J.; TORRES, D.; TORRICO, O.; WALLACE, R. B. . Citizen science from the Iberoamerican perspective: an overview, and insights by the RICAP network. In: European Citizen Citizen Science Association Conference (ECSA Conference 2020), 2020, Trieste. DOI: 10.5281/zenodo.4019060	Poster
[4]	de Macêdo Morais, L. A.; Andrade, N.; de Sousa, D. M. C.; **Ponciano, Lesandro**. Defamiliarization, representation granularity, and user experience: A qualitative study with two situated visualizations. In *2019 IEEE Pacific Visualization Symposium (PacificVis)*. 2019, pp. 92-101. IEEE. DOI: 10.1109/PacificVis.2019.00019	Full-paper
[5]	**Ponciano, Lesandro**; Pereira, Thiago Emmanuel. "Characterising volunteers' task execution patterns across projects on multi-project citizen science platforms." *Proceedings of the 18th Brazilian Symposium on Human Factors in Computing Systems*. 2019. pp. 1-11. ACM,. DOI: [10.1145/3357155.3358441](10.1145/3357155.3358441)	Full-paper
[6]	**Ponciano, Lesandro**. HCI Support Card: Creating and Using a Support Card for Education in Human-Computer Interaction. In: Workshop on HCI Education, 2019, Vitória. Anais Estendidos do Simpósio Brasileiro de Fatores Humanos em Sistemas Computacionais (IHC). Porto Alegre, Brasil: Sociedade Brasileira de Computação - SBC, 2019. pp. 106-111. DOI: [10.5753/ihc.2019.8409](10.5753/ihc.2019.8409)	Full-paper
[7]	**Ponciano, Lesandro**; Brasileiro, Francisco. "Agreement-based credibility assessment and task replication in human computation systems." *Future Generation Computer Systems,* 87 (2018): 159-170. DOI: 10.1016/j.future.2018.05.028	Full-paper
[8]	**Ponciano, Lesandro**; Barbosa, Pedro; Brasileiro, Francisco; Brito, Andrey; Andrade, Nazareno. "Designing for Pragmatists and Fundamentalists: Privacy Concerns and Attitudes on the Internet of Things." *Proceedings of the XVI Brazilian Symposium on Human Factors in Computing Systems*. 2017. pp. 1-10. ACM. DOI:[10.1145/3160504.3160545](10.1145/3160504.3160545)	Full-paper
[9]	Eitzel, M.V., Cappadonna, J.L., Santos-Lang, C., Duerr, R.E., Virapongse, A., West, S.E., Kyba, C.C.M., Bowser, A., Cooper, C.B., Sforzi, A., Metcalfe, A.N., Harris, E.S., Thiel, M., Haklay, M., **Ponciano, Lesandro**., Roche, J., Ceccaroni, L., Shilling, F.M., Dörler, D., Heigl, F., Kiessling, T., Davis, B.Y. and Jiang, Q., 2017. "Citizen Science Terminology Matters: Exploring Key Terms". *Citizen Science: Theory and Practice*, 2(1), p.1. DOI: 10.5334/cstp.96	Full-paper
[10]	**Ponciano, Lesandro**; Brasileiro, Francisco; Simpson, Robert; Smith, Arfon. "Volunteers' Engagement in Human Computation for Astronomy Projects". *Computing in Science & Engineering*, v. 16, p. 52-59, 2014. DOI: 10.1109/MCSE.2014.4	Full-paper
[11]	**Ponciano, Lesandro**; Brasileiro, Francisco. "Finding Volunteers' Engagement Profiles in Human Computation for Citizen Science Projects". *Human Computation*, v. 1, n. 1, p. 245-264, 2014. DOI: [10.15346/hc.v1i2.12](10.15346/hc.v1i2.12)	Full-paper
[12]	**Ponciano, Lesandro**; Brasileiro, Francisco; Andrade, Nazareno; Sampaio, Lívia. "Considering Human Aspects on Strategies for Designing and Managing Distributed Human Computation". *Journal of Internet Services and Applications*, v. 5, p. 1-28, 2014.	Full-paper

DOI: 10.1186/s13174-014-0010-4

[13]	**Ponciano, Lesandro**; Brasileiro, Francisco. "Assessing Green Strategies in Peer-to-Peer Opportunistic Grids". *Journal of Grid Computing*, v. 11, p. 129-148, 2013. DOI: 10.1007/s10723-012-9218-3	Full-paper
[14]	**PONCIANO, Lesandro**; Andrade, Nazareno; Brasileiro, Francisco. BitTorrent traffic from a caching perspective. Journal of the Brazilian Computer Society, v. 19, p. 475-491, 2013. DOI: 10.1007/s13173-013-0112-z	Full-paper
[15]	**PONCIANO, Lesandro**; Brasileiro, Francisco; Gadelha, Guilherme. Task Redundancy Strategy Based on Volunteers' Credibility for Volunteer Thinking Projects. In: AAAI Conference on Human Computation and Crowdsourcing, 2013, Palm Springs. p. 60-61.	Abstract
[16]	**Ponciano, Lesandro**; Brito, Andrey; Sampaio, Lívia; Brasileiro, Francisco. Energy Efficient Computing through Productivity-Aware Frequency Scaling. In: 2012 International Conference on Cloud and Green Computing (CGC), 2012, Xiangtan. 2012. p. 191-198. DOI: 10.1109/CGC.2012.59	Full-paper
[17]	Alves, Luiz; Maciel, Matheus; **Ponciano, Lesandro**; Brito, Andrey. Assessing the impact of the social network on marking photos as favorites in flickr. In: 18th Brazilian symposium on Multimedia and the web, 2012, São Paulo/SP. New York: ACM Press. p. 79-82. DOI: 10.1145/2382636.2382655	Full-paper
[18]	**Ponciano, Lesandro**; Brasileiro, Francisco. On the impact of energy-saving strategies in opportunistic grids. In: Energy Efficient Grids, Clouds and Clusters Workshop (E2GC2 2010), 2010, Bruxelas. 11th ACM/IEEE International Conference on Grid Computing (Grid 2010), 2010. v. 1. p. 282-289. DOI: 10.1109/GRID.2010.5698003	Full-paper

Peer-reviewed Conference and Journal Publications [Published in Portuguese]

[1]	LOUZADA, HENRIQUE; CHAVES, GABRIEL; **Ponciano, Lesandro**. Exploring user profiles based on their explainability requirements in interactive systems. In: IHC '20: XIX Brazilian Symposium on Human Factors in Computing Systems, 2020, Diamantina Brazil. New York: ACM, 2020. p. 1-6. DOI: 10.1145/3424953.3426545	Full-paper
[2]	**Ponciano, Lesandro**. "Structured Debate: A Pedagogical Strategy for Teaching and Learning Human Values in Human-Computer Interaction." (Portugue: Debate Estruturado: Uma Estratégia Pedagógica para Ensino e Aprendizagem de Valores Humanos em Interação Humano-Computador). In: Workshop on HCI Education, 2018. Anais Estendidos do XVII Simpósio Brasileiro de Fatores Humanos em Sistemas Computacionais (IHC). DOI: 10.5753/ihc.2018.4209	Full-paper
[3]	VALGAS, A.; CARMO, F.; **Ponciano, Lesandro**; GOES, L. "Analysis of Popularity, Visibility and Activity of Different Types of Socialbots on Twitter Social Network" (Portuguese: Análise da Popularidade, Visibilidade e Atividade de Diferentes Tipos de Robôs na Rede Social Twitter). In: XIV Simpósio Brasileiro de Sistemas Colaborativos, 2017, São Paulo. XXXVII Congresso da Sociedade Brasileira de Computação. Porto Alegre: Sociedade Brasileira de Computação, 2017. v. 1. p. 1342-1355. DOI: 10.5753/sbsc.2017.9958	Full-paper
[4]	RAMOS, S. L. ; Góes, Luiz Fabrício; **Ponciano, Lesandro**; FRANCA, C.; MORAIS, H. . "Assessing Players' Perception of Hearthstone Digital Card Game Combo Creativity" (Portuguese: Avaliação da Percepção de Jogadores sobre a Criatividade de Combos do Jogo Digital de Cartas Hearthstone). In: Simpósio Brasileiro de Jogos e Entretenimento Digital (SBGames), 2016, São Paulo. Simpósio Brasileiro de Jogos e Entretenimento Digital (SBGames). Porto Alegre: SBC, 2016. p. 190-193.	Short-paper

[5]	**Ponciano, Lesandro**; Brasileiro, Francisco; Gadelha, Guilherme; Furtado, Adabriand. Adaptive Task Replication Strategy for Human Computation. In: 2014 Brazilian Symposium on Computer Networks and Distributed Systems (SBRC), 2014, Florianopolis. p. 249-257.	Full-paper
[6]	Oliveira, Jeymisson; **Ponciano, Lesandro**; Andrade, Nazareno; Brasileiro, Francisco. "Strategies for obtaining a maximum item in Human Computation" (Portuguese: Estratégias de obtenção de um item máximo em Computação por Humanos). In: XXXI Simpósio Brasileiro de Redes de Computadores e Sistemas Distribuídos (SBRC 2013), 2013, Brasília. Porto Alegre: SBC, 2013. p. 253-266.	Full-paper
[7]	ARAÚJO, E. C.; Gaudencio, Matheus; Menezes, Andrey; Ferreira, Iury; Ribeiro, Iara; Fagner, Alberto; **Ponciano, Lesandro**; Morais, Fábio; Guerrero, Dalton; Figueiredo, Jorge. "The Role of Study Habits in Student Programming Performance" (Portuguese: O papel do hábito de estudo no desempenho do aluno de programação). In: Workshop sobre Educação em Computação (WEI), 2013, Maceió. Congresso da Sociedade Brasileira da Computação (CSBC). Porto Alegre: Sociedade Brasileira da Computação, 2013. p. 730-738.	Full-paper
[8]	**Ponciano, Lesandro;** Santana, Jaindson; Carvalho, Marcus; Gaudêncio, Matheus; Brasileiro, Francisco. "Analysis of Green Computing Strategies in Opportunistic Computational Grids" (Portuguese: Análise de Estratégias de Computação Verde em Grades Computacionais Oportunistas). In: XXVIII Simpósio Brasileiro de Redes de Computadores (SBRC), 2010, Gramado. Porto Alegre, Brasil: SBC, 2010. v. 1. p. 307-320.	Full-paper
[9]	**Ponciano, Lesandro**; Brasileiro, Francisco; Santana, Jaindson; Carvalho, Marcus; Gaudêncio, Matheus. "Using Standby and Hibernate Strategies to Save Energy on Opportunistic Computational Grids." (Portuguese: Usando as Estratégias Sobreaviso e Hibernação para Economizar Energia em Grades Computacionais Oportunistas). Revista Brasileira de Redes de Computadores e Sistemas Distribuídos, v. 3, p. 9-20, 2010.	Full-paper
[10]	**Santos, Lesandro Ponciano dos**; Silva, J. P. D. ; Góes, Luiz Fabrício. "Supercomputer Workload Characterization Technique for Predicting Parallel Task Behavior" (Portuguese: Técnica de Caracterização de Cargas de Trabalho de Supercomputadores para Predição do Comportamento de Tarefas Paralelas). Revista Eletrônica de Iniciação Científica, v. 1, p. 1, 2009.	Full-paper
[11]	**Santos, Lesandro Ponciano dos**; Góes, Luiz Fabrício. "Discovery and Prediction of Parallel Task Behavior through the Characterization of Patterns in Workloads" (Portuguese: Descoberta e Predição de Comportamento de Tarefas Paralelas através da Caracterização de Padrões em Cargas de Trabalho). In: WorkShop de Sistemas Computacionais de Alto Desempenho- Concurso de Trabalhos de Iniciação Científica (WSCAD-CTIC). Concurso de Trabalhos de Iniciação Científica em Arquitetura de Computadores e Computação de Alto Desempenho - CTIC, 2008, Campo Grande/MS	Short-paper
[12]	**Santos, Lesandro Ponciano dos**; Góes, Luiz Fabrício. "Parallel Machine Workload Characterization Technique for Extracting Information Used by a Reconfigurable Task Scheduler" (Portuguese: Técnica de Caracterização de Carga de Trabalho de Máquinas Paralelas para Extração de Informações Utilizadas por um Escalonador Reconfigurável de Tarefas). In: Workshop em Sistemas Computacionais de Alto Desempenho (WSCAD), Concurso de Trabalhos de Iniciação Científica em Arquitetura de Computadores e Computação de Alto Desempenho - CTIC, 2007, Gramado/RS.	Short-paper

Scientific Journal Activities
- Reviewer for **SBC Journal on 3D Interactive Systems** journal
- Reviewer for **Human Computation** journal

- Reviewer for **IEEE Computing in Science & Engineering** journal
- Reviewer for **IEEE Transactions on Human-Machine Systems** journal

Scientific Conference Activities

- Program Committee Member for **VII Ibero-American Conference on Human-Computer Interaction**. 2021.
- Program Committee Member for **Brazilian Symposium on Collaborative Systems (SBSC)**. 2021.
- Program Committee Member for **I Brazilian Symposium on Computer Education (EduComp)**. 2021. .
- Program Committee Member for **ACM International Conference on Supporting Group Work (GROUP)**. 2021.
- Program Committee Member for **XX Brazilian Symposium on Human Factors in Computer Systems**. 2021.
- Program Committee Member for **I Contest for Scientific Initiation Papers in Software Engineering (CTIC-ES)** of the Brazilian Symposium on Software Engineering (SBES). 2020.
- Program Committee Member for **XIX Brazilian Symposium on Human Factors in Computer Systems (IHC)**. 2020.
- External reviewer of the **ACM CHI 2020 Conference**. 2019.
- Program Committee Member for **XVIII Brazilian Symposium on Human Factors in Computer Systems (IHC)**. 2019.
- Program Committee Member for **Brazilian Symposium on Collaborative Systems (SBSC)**. 2019.
- External reviewer of Program Committee Member for. 2018.
- Program Committee Member for **XVII Brazilian Symposium on Human Factors in Computer Systems (IHC)**. 2018.
- Program Committee Member for **XIV Brazilian Symposium on Collaborative Systems (SBSC)**. 2017.
- External reviewer of **Workshop on P2P, Dynamic, Social and Content Oriented Networks (SBRC - Wp2p+)**. 2011.
- External reviewer of **Symposium on Computer Systems (WSCAD-SSC)**. 2011.
- External reviewer of **Scientific Initiation Workshop in Computer Architecture and High Performance Computing (WSCAD-WIC)**. 2011.

Scientific Associations Activities

- **Member of the** Citizen Science Association (CSA)
- **Member of the** Brazilian Computer Society (SBC)
- **Member of the** Brazilian Society for the Advancement of Science (SBPC)
- **Member of the** Iberoamerican Network of Participatory Science (RICAP).

Scientific Event Participations

2021	Brazilian Symposium on Computer Education	Online
2020	European Citizen Science Conference	Online
2020	Brazilian Symposium on Human Factors in Computing Systems	Online
2019	Brazilian National Science and Technology Week	Ponte Nova/Brazil
2018	Brazilian Symposium on Human Factors in Computing Systems	Belém/Brazil
2017	Citizen Science Association Conference	Twin Cities/USA
2017	Brazilian Symposium on Human Factors in Computing Systems	Joinville/Brazil
2017	Congress of the Brazilian Computer Society	São Paulo/Brazil
2014	IEEE International Conference on eScience.	São Paulo/Brazil
2014	Brazilian Symposium on Computer Networks and Distributed Systems.	Florianópolis/Brazil
2013	AAAI Conference on Human Computation and Crowdsourcing	Palm Spring/ USA
2012	Congress of the Brazilian Computer Society	Curitiba/Brazil

2010	IEEE/ACM International Conference on Grid Computing			Brussels/Belgium
2010	Brazilian Symposium on Computer Networks and Distributed Systems.			Gramado/Brazil
2007	IEEE International Symposium on Computer Architecture and High Performance Computing			Gramado/Brazil

Teaching Activities

Course	Duration	Frequency	Program	University
Human-Computer Interaction	68 hours over 4 months	Semiannually from 2016 until now.	Software Engineering	PUC Minas
Introduction to Informatics Research	34 hours over 4 months	Semiannually from 2020 until now.	Software Engineering	PUC Minas
Software Testing	68 hours over 4 months	Semiannually from 2020 until now.	Software Engineering	PUC Minas
Requirements Engineering	68 hours over 4 months	Semiannually from 2017 until 2019	Information System	PUC Minas
Software Quality	68 hours over 4 months	Semiannually from 2017 until 2020	Information System	PUC Minas
Operating Systems	68 hours over 4 months	Semiannually from 2017 until now.	Software Engineering	PUC Minas
Information Systems Design	68 hours over 4 months	2019	Information System	PUC Minas
Distributed Application Development	68 hours over 4 months	2019	Information System	PUC Minas
Computer Architecture	68 hours over 4 months	2017	Computer Science	PUC Minas
Computer Programming	68 hours over 4 months	2016	Electrical Engineering	PUC Minas
Algorithms and Data Structure	68 hours over 4 months	2016	Information System	PUC Minas

Since 2020, Lesandro Ponciano is certified as a **GitHub Campus Advisor**, which is a program part of the GitHub Education (https://education.github.com/teachers/advisors).

Selected Online Profiles and Resources

Github	https://github.com/lesandrop
Google Scholar	https://scholar.google.com.br/citations?user=KS9I4P0AAAAJ
Semantic Scholar profile	https://www.semanticscholar.org/author/Lesandro-Ponciano/2034958
Scopus profile	https://www.scopus.com/authid/detail.uri?authorId=36975953000
ORCID	https://orcid.org/0000-0002-5724-0094