

# Lidiany Cerqueira

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## Profile

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A Senior Software Engineer and Computer Science researcher with a PhD in Software Engineering and over 15 years of industry experience. Research focuses on human-centered and empirical software engineering, including empathy, collaboration, well-being, and software quality. Published in international venues such as ACM TOSEM and IEEE Software. Experienced lecturer in programming and interdisciplinary computing courses.

**Research interests:** *Empirical Research, Software Engineering, Human-centered Computing, and AI for Software Engineering.*

## Education

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<b>PhD</b>	<b>Federal University of Bahia</b> , Computer Science	2020 – 2025
	• <b>Dissertation:</b> Empathy-Guided Software Development: A Conceptual Framework of Empathy in Software Engineering	
	• <b>Advisor:</b> Manoel Mendonça <b>Co-advisor:</b> José Amancio M. Santos	
<b>MS</b>	<b>Federal University of Sergipe</b> , Computer Science	2013 – 2015
<b>BS</b>	<b>State University of Feira de Santana</b> , Computer Engineering	2005 – 2011

## Research

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<b>Lead Investigator</b>	August 2025 - Present
• I am leading a new international initiative exploring empathy across diverse cultural work settings (starting with Portugal and Botswana).	
• Collaborating with industry partners to develop GenAI-driven solutions for assessing job satisfaction and work engagement.	
<b>Federal University of Bahia</b> , Research Assistant	Salvador, BA, BR
• Worked at Professor Manoel Mendonça's lab, as part of my PhD Research.	Oct 2020 – July 2025
• Designed and conducted mixed-methods studies focusing on human aspects of Software Engineering (SE), including empathy, work engagement, developer productivity, and technical debt.	
• Mentored Master's and undergraduate students throughout the research lifecycle, resulting in the successful co-authorship of papers in top-tier conferences.	
<b>Virginia Commonwealth University</b> , Visiting Researcher	Richmond, VA, USA
• Worked at Professor Rodrigo Spinola's lab. Supported by the Capes PrInt scholarship.	Dec 2023 – May 2024
• Collaborated with faculty and graduate students, contributing to ongoing research.	
• Engaged with a diverse academic community and strengthened international academic partnerships, advancing my skills in empirical software engineering.	

## Teaching Experience

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<b>Federal University of Bahia</b> , Lecturer	Salvador, BA, BR
• Developed course materials and assessments	Apr 2025 – May 2025
• Lectured in online classes of ~30 students	
• Python computer programming and Computational thinking	

**Federal University of Bahia**, Teaching AssistantSalvador, BA, BR  
Mar 2021 – Dec 2021

- Assisted Prof. Manoel Mendonça in teaching functional paradigms. Functional Programming (MATA77-01)
- Supporting grading, preparing materials, and guiding students during practical activities

**Federal University of Sergipe**, LecturerLagarto, SE, BR  
Jan 2017 – Nov 2018

- Taught Applied Health Informatics
- Developed course materials and assessments
- Lectured classes of ~25 undergraduate students
- Mentored student projects

**Technical Experience****Ministry of Education**, Senior Software EngineerLagarto, SE, BR  
2011 – Present

- Senior software engineer in the public-sector environment, contributing to the design, development, and maintenance of institutional software systems.
- Promoting industry best practices at a large public institution, with experience spanning system development, tech lead, process improvement, and collaboration with multidisciplinary stakeholders.

**Speed System**, Software DeveloperFeira de Santana, BA, BR  
2008 - 2011

- Development of web applications using JEE and Hibernate at a software startup.

**Service****2nd Intl. Workshop on Responsible Software Engineering. FSE'26.** PC Member

2026

**XXII SBSI – Brazilian Symposium on Information Systems.** PC Member

2026

**Journal of Systems & Software.** Reviewer

2025 - Present

**Information and Software Technology.** Reviewer

2025 - Present

**Science of Computer Programming.** Reviewer

2025 - Present

**JMIR mhealth and uhealth.** Reviewer

2025 - Present

**IEEE Software.** Reviewer

2024 - Present

**WEPGCOMP.** Organizing Committee. Computer Science Graduate Student Workshop

2021

**Fellowships and Grants****Grant:** ACM SIGSOFT - Fourth LATAM School in Software Engineering

2024

**Fellowship:** Coordination for the Improvement of Higher Education Personnel – Institutional Program for Internationalization (CAPES PrInt). Visiting Scholar at VCU.

Dec 2023 – May 2024

**Grant:** ACM SIGSOFT - Second LATAM School in Software Engineering

2022

**Fellowship:** Undergraduate Researcher Scholarship - State University of Feira de Santana. Fapesb Scientific Initiation Program.

Jan 2007- Feb 2008

**Honors and Awards****Distinguished Paper:** A Thematic Synthesis on Empathy in Software Engineering. XXXVII Brazilian Symposium on Software Engineering.

2023

**Honorable Mention:** Workshop of Scientific Undergraduate Research.

2010

## **Outreach Projects**

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<b>BRAVAS in Tech</b> , Board member and Community Manager	Oct 2025 - present
<ul style="list-style-type: none"><li>Fostering a welcoming and empowering community for women in technology by organizing interactive sessions, connecting members, and promoting empathy, learning, and mutual support.</li></ul>	
<b>Educational Workshops</b>	2017 - present
<ul style="list-style-type: none"><li>Designed and conducted educational workshops covering topics such as programming, data science, open science, cybersecurity, and tools for remote education.</li></ul>	
<b>Aging, Technology, and Health</b>	2017 - 2019
<ul style="list-style-type: none"><li>Designed and coordinated a project to empower older adults through technology and health classes.</li><li>Developed an Android app to assist older adults in learning mobile technology for communication, entertainment, and improving their health habits.</li></ul>	
<b>Applied Informatics</b>	2017 - 2019
<ul style="list-style-type: none"><li>Coordinated a team of health undergraduate students to develop a mobile app for learning human anatomy. Project funded by PROEX/PIAEX/UFS, Grant 23/2018.</li><li><a href="https://labmorfoquiz.github.io/">labmorfoquiz.github.io/</a></li></ul>	

## **Languages**

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**Portuguese:** Native speaker

**English:** Fluent

**Spanish:** Basic reading, speaking, and comprehension

**Italian:** Basic reading, speaking, and comprehension

## **Technologies**

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**Programming Languages:** Java, Python, C, C#, PHP, JavaScript

**Databases:** SQL, PostgreSQL, MySQL

**Software Development:** Git, GitHub, Eclipse IDE, VSCode, .NET, RStudio, WordPress, MediaWiki, Markdown

**Research & Analysis:** R, Python, AI Tools (ChatGPT, Claude, Gemini, DeepSeek, Elicit), Latex, MaxQDA, NVivo, Zotero

**Open Science & Research Infrastructure:** Zenodo, Figshare, OSF, arXiv

**Communication & Design Tools:** Canva, Figma, draw.io

## Selected Publications

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My name is highlighted as Lidiany Cerqueira (shortened) or Lidiany Cerqueira Santos (full name) in older papers.

### Journal articles

- Exploring Empathy in Software Engineering: Insights from a Grey Literature Analysis of Practitioners' Perspectives. [ACM Transactions on Software Engineering and Methodology](#). 2025  
**Cerqueira, L.**, Bastos, J. P., Neves, D., Carneiro, G., Spínola, R., ... & Mendonça, M.
- Assessing Software Practitioners' Work Engagement and Job Satisfaction in a Large Software Company - What We Have Learned? [Springer Nature Computer Science](#). 2025  
**Cerqueira, L.**, Nunes, L., Malheiros, V., Guerra, R. ... Spínola, R., Santos, J., Mendonça, M.
- Empathy and its Effects on Software Practitioners' Well-being and Mental Health [IEEE Software](#). 2024  
**Cerqueira, L.**, ... & Spínola, R., Mendonça, M., Santos, J.

### Conference articles

- Investigating the relationship between churning and code smells. [51st Euromicro Conference on Software Engineering and Advanced Applications \(SEAA'25\)](#) 2025  
Gomes, K. C., ... **Cerqueira, L.**, Spínola, R., Mendonça, M., & Amancio, J.
- Does context matter? An exploratory study on god class distribution based on contextual attributes. [51st Euromicro Conference on Software Engineering and Advanced Applications \(SEAA'25\)](#) 2025  
Cerqueira, E. R., Moraes, G., **Cerqueira, L.** ... Spínola, R., Mendonça, M., & Amancio, J.
- “Frustrating, Stressful, and Overwhelming”: Insights into Software Practitioners’ Productivity from Stack Exchange Discussions. [39th Brazilian Symposium on Software Engineering \(SBES'25\)](#) 2025  
Silva, J.; **Cerqueira, L.** ... Mendonça, M. & Santos, J. A. M.
- Technical Debt Management in Agile Software Development: A Systematic Mapping Study. [XXIII Brazilian Symposium on Software Quality \(SBQS'24\)](#) 2024  
Leite, G. D. S., Vieira, R. E. P., **Cerqueira, L.** ... & Mendonça, M.
- Software Engineers Engagement and Job Satisfaction: A Survey with Practitioners Working Remotely in a Public Organization. [27th International Conference on Enterprise Information Systems \(ICEIS'24\)](#) 2024  
**Cerqueira, L.** , ... Spínola, R., Mendonça, M. & Santos, J.
-  A Thematic Synthesis on Empathy in Software Engineering. [XXXVII Brazilian Symposium on Software Engineering \(SBES'23\)](#) 2023  
**Cerqueira, L.** , ... Spínola, R., Mendonça, M. & Santos, J.
- The who, what and how of the current research at the Brazilian Symposium on Software Engineering. [XXXVI Brazilian Symposium on Software Engineering \(SBES'22\)](#) 2022  
**Cerqueira, L.** , Silva, J. C. A. Vasconcelos, I. Mendonça, M. & Santos, J.
- An assessment of Project-Based Learning towards Applied Health Informatics Teaching in an Undergraduate Class. [XXXI Brazilian Symposium on Informatics in Education \(SBIE'20\)](#) 2020  
**Santos, L.C.**, Neves, D., Menezes, F.