

# Thiago Santos de Moura



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📞 +49 1512 9696001   ✉️ [thiago.santosdemoura@ruhr-uni-bochum.de](mailto:thiago.santosdemoura@ruhr-uni-bochum.de)  
📍 Ruhr-Universität Bochum, Room MC 4.115, Bochum, Germany  
📅 Born February 9, 1997 (age 28) in Campina Grande, Brazil

## Researcher

**Bio.** Passionate about research and software quality, I specialize in detecting faults through visible failures in web applications during my master's studies. My work advances scriptless testing through systematic exploration and addresses challenges reported in the literature. I also apply my knowledge in industry settings, continuously seeking automated solutions to specific challenges.

**Research interests.** For a doctoral research, my goal is to advance automated program repair and software testing by applying machine learning and symbolic execution. I want to create practical tools to enhance software development and testing.

## 🎓 Education

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- Mar 2022 – Sep 2024   **M.Sc. in Computer Science**, *Federal University of Campina Grande (UFCG), Brazil*  
Center for Electrical and Computer Engineering (CEEI)  
*Advisors : Prof. Everton Alves and Prof. Cláudio Baptista*  
GPA : 8.9/10.0
  - Oct 2016 – Jun 2021   **B.Sc. in Computer Science**, *Federal University of Campina Grande (UFCG), Brazil*  
Center for Electrical and Computer Engineering (CEEI)  
*Advisors : Prof. Cláudio Baptista and Prof. Hugo Figueirêdo*  
GPA : 8.2/10.0
  - Jan 2013 – Jun 2016   **Computer Technician** Integrated to High School, *Federal Institute of Paraíba (IFPB), Brazil*  
Coordination of the Informatics Course (CCI)  
GPA : 8.2/10.0

## 📖 Publications

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- > **Santos de Moura**, Thiago, et al. "Cytestion : Automated GUI Testing for Web Applications." In Proceedings of the XXXVII Brazilian Symposium on Software Engineering, pp. 388-397. 2023. DOI : [10.1145/3613372.3613408](https://doi.org/10.1145/3613372.3613408).
  - > **Santos de Moura**, Thiago, et al. "An Automatic Approach for Uniquely Discovering Actionable Elements for Systematic GUI Testing in Web Applications." The 24th International Conference on Software Quality, Reliability, and Security (QRS 2024). DOI : [10.1109/QRS62785.2024.00012](https://doi.org/10.1109/QRS62785.2024.00012).
  - > **Santos de Moura**, Thiago, et al. "Addressing the Synchronization Challenge in Cypress End-to-End Tests." XXXVIII Brazilian Symposium on Software Engineering (SBES 2024). DOI : [10.5753/SBES.2024.3298](https://doi.org/10.5753/SBES.2024.3298).
  - > **Santos de Moura**, Thiago, et al. "Iterative Deepening URL-Based Search : Enhancing GUI Testing for Web Applications." XXXVIII Brazilian Symposium on Software Engineering (SBES 2024). DOI : [10.5753/SBES.2024.3363](https://doi.org/10.5753/SBES.2024.3363).

## </> Projects & Experiences

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|----------------------|---|
| Mar 2025<br>Current  | <b>Research Associate, Software Quality Group, Ruhr University Bochum, Bochum, Germany</b> <ul style="list-style-type: none"><li>&gt; Conducting research in the field of computer science with a focus on software testing, automated program repair, and novel approaches to automated test case generation;</li><li>&gt; Supporting teaching activities in courses offered by the faculty of computer science for bachelor and master students;</li><li>&gt; Supervising bachelor's students during their thesis projects and supporting the academic development of the group.</li></ul> <p>Latex   Paper Review   Research Tasks</p>   |
| Jan 2019<br>Feb 2025 | <b>Software Engineer, PaqTcPB (LSI/UFCG), Campina Grande, Brazil</b> <ul style="list-style-type: none"><li>&gt; Worked on full-stack dev and QA across multiple projects for public and private partners, modernizing legacy systems and building new solutions using ReactJS, SpringBoot, Python, and Docker;</li><li>&gt; Led QA efforts, promoting a quality-driven culture, integrating automated testing and CI/CD pipelines with tools such as Cypress, SonarQube, Cytestion, Postman, and EvoSuite;</li><li>&gt; Managed testing teams and supported cross-functional teams in delivering reliable, maintainable software for tax, auditing, and transparency systems.</li></ul> <p>ReactJS   SpringBoot   Docker   SQL Server/PostgreSQL   Cypress   SonarQube   EvoSuite   Randoop   Cytestion</p> |

Set 2023 May 2024	<b>Co-supervisor of Bachelor Students, UFCG, Campina Grande, Brazil</b> > Co-supervisor two students in their bachelor's thesis, involving monitoring, corrections, and collaborative scientific article production. <span>Latex</span> <span>Google Colab</span>
Oct 2017 Apr 2024	<b>Teaching Assistant – Bachelor Program, UFCG, Campina Grande, Brazil</b> > Teaching assistant in the undergraduate program, supporting courses such as Programming Lab II, Databases, and Software Verification & Validation; > Contributed to lesson planning, supervised student activities and projects, delivered practical sessions, and taught GUI testing concepts using tools like Selenium and Cypress. <span>Java</span> <span>OOP</span> <span>Oracle Database</span> <span>Selenium</span> <span>Cypress</span>

## ☰ Contributions & Activities

### Cytestion

Created and maintain an open-source tool for scriptless, progressive automated GUI testing of web applications.

### Reviewer Roles

Served as a reviewer for major conferences and symposiums, including ISM 2023, SAST 2023, and COMPSAC 2024 (SETA track).

### Cypress Network Wait

Developed and maintain the Cypress Network Wait dependency, available on NPM.

## ☰ Skills

<b>Programming Skills :</b>	Python, Java, JavaScript, TypeScript, C, C++, R, Shell scripting, and $\LaTeX$ .
<b>Machine Learning :</b>	Studying AI/ML and LLMs, with experience in TensorFlow, PyTorch, and scikit-learn.
<b>DevOps &amp; Tools :</b>	Proficient in Git, CI/CD, Docker, and Kubernetes.
<b>Web Development :</b>	Skilled in React, MobX, Spring Boot, and Hibernate.
<b>Databases :</b>	Experience with Oracle DB, PostgreSQL, MySQL, and MS Server.
<b>Testing &amp; Quality Assurance :</b>	Proficient in Cypress, JUnit, Selenium, SonarQube, Postman, and Locust.

## 🏆 Honors & Awards

2022 - 2024	Master's Scholarship from Coordination for the Improvement of Higher Education Personnel (CAPES).
2017 - 2018	Teaching Assistant Scholarship from Federal University of Campina Grande (UFCG).

## 🗣️ Languages

<b>English :</b>	<b>Reading</b>	● ● ● ● ●	<a href="#">TOEFL iBT Certificate</a>
	<b>Listening</b>	● ● ● ● ●	<a href="#">Cambly Certificate</a>
	<b>Speaking</b>	● ● ● ○ ○	<a href="#">EF SET Certificate</a>
	<b>Writing</b>	● ● ● ○ ○	

## 👥 Reference

<b>Dr. Yannic Noller</b> Professor of Computer Science at RUB <a href="mailto:yannic.noller@rub.de">yannic.noller@rub.de</a>	<b>Dr. Everton Leandro Galdino Alves</b> Professor of Computer Science at UFCG <a href="mailto:everton@computacao.ufcg.edu.br">everton@computacao.ufcg.edu.br</a>	<b>Dr. Hugo Feitosa de Figueirêdo</b> Professor of Computer Engineering at IFPB <a href="mailto:hugo.figueiredo@ifpb.edu.br">hugo.figueiredo@ifpb.edu.br</a>
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