

Gabriel Rodrigues

 [gabrielsr.github.io](https://github.com/gabrielsr)
 Brazil

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Software engineer with 12 years of industry experience, involved in diverse projects across various sectors and clients. Academic accomplishments include a Bachelor's degree, MBA, and Master's degree, with the final stage of a PhD nearing completion. Collaborated with esteemed researchers from global universities and contributed to respected journals. Areas of expertise encompass software architecture, distributed systems, formal methods, test, and simulation. A strong commitment to skill enhancement and staying updated with the latest advancements in the field. Aspiring to apply extensive knowledge and experience to tackle complex and critical systems. Open to roles as a software developer, consultant, or tech leader, leveraging expertise to deliver innovative solutions.

Education

Doctor of Informatics

Doctor's degree program

University of Brasilia

March 2019 – Present

Thesis: Robust Coordination of Multi-Robot Missions (in elaboration), Advisor: Genaina Rodrigues

The research focus on architectural aspects of multi-robot coordination, and robustness under environment and robot uncertainty

Visiting Researcher

Sandwich degree

Chalmers University/Sweden

March 2020 – March 2021

As part of the PhD program, a visiting researcher position was held at Chalmers University in Gothenburg, Sweden.

Master of Informatics

Master's degree program

University of Brasilia

March 2014 – July 2016

Thesis: Autonomic goal-driven deployment in heterogeneous computing environments , Advisor: Genaina Rodrigues

Project Management

Master of Business Administration (MBA)

Getulio Vargas Foundation

May 2013 – 2015

2 years MBA program

Centered on soft skills, ethics, leadership and project management methodology (PMBOK)

Bachelor of Computer Science

Bachelor's degree program

University of Brasilia

2006 – 2011

Major: Computer Science, End-course thesis: "A Case Study for the Evaluation of SCRUM from the Perspective of MPS.BR Level G"

Work Experience

University of Brasilia

Capes Ph.D. Scholarship, fully founded with exclusive dedication

Set 2019 – Present

Brasilia, BR

- Researcher at the Laboratory of Dependability (LaDeCIC - UnB)
- Recruited undergraduate students for research projects, providing mentoring and guidance in software projects, code reviews, and thesis writing.
- Coordinated the 'HMR Sim' project, which is implementing a light weight simulator for multi-robot mission experiments, in Python, with ROS2 interface.
- Coordinated the MissionControl project, which is an architecture for multi-robot systems.
- Mentored 6 students in their final year projects, and led other 6 undergraduate scientific research projects focused on network simulation, simulation architecture, automated testing, and container orchestration.
- Taught a term of the Software Engineering course, emphasizing Agile Practices and Software as a Service technologies.
- Assisted with various activities including research project writing, cost estimation, peer review of papers, and expertly organizing academic events.

Rhases

Jan 2015 – March 2019

Co-founder/Software Engineer

Brasilia, BR

- Cofounded Rhases, a startup centered on helping users better manage their health. Its main product was an E-Commerce platform for contracting health-insurance plans, that connected clients and consultants. There I had the opportunity for learning about the domain of insurance and about sales pipelines.
- Participate in all technical activities, from selecting a suitable stack, architectural decisions, front-end dev (Angular), back-end dev (Node/Express/MongoDB), CI/CD, SEO, cloud deployment, cloud cost optimization, customer behavior analysis.
- Participated in strategic planning, hiring, funding raising activities, and in a startup acceleration program (Cotidiano Aceleradora).
- Led the social media team

e-Sec Digital Security

Jan 2010 - July 2015

Different positions

Brasilia, BR

- Assumed different positions from junior developer to tech leader.
- The teams that I participated and led developed web and mobile applications related to digital signature and primary key infrastructure (PKI), centered on Java technologies (JavaEE, Spring, Android, etc)
- Recruited, mentored and supervised numerous interns and junior developers as a team leader.
- Spearheaded the establishment of the Infrastructure team, overseeing recruitment, process definition, and training.
- Led the creation of the Documentation and Quality Assurance team, managing recruitment, process development, and training.
- Supported the organization growth by pioneered the implementation of significant process improvements, such as agile methodologies (Scrum and acceptance-driven development), automated testing, and CI/CD pipelines, organizational knowledge repository, DevOps practices, etc

Various

2008 - 2009

Internships

Brasilia, BR

- intern at Duom - I worked on an interface team (C# and .net)
- intern at Federal Court of Accounts (TCU) - I worked on an information systems team using JavaEE.

Technical skills

Programming Languages	Python, Java, JavaScript/TypeScript, C/C++, Elixir
Web Frameworks	Python/Flask, Node/Express, AngularJS, React, JavaEE
Robotics Technologies	ROS1, ROS2, Nav2, Gazebo Simulator
Project Management	Agile: Scrum/XP, Traditional: PMBOK

Languages

English	Fluency in both the written and spoken language
Portuguese	Native
Spanish	Intermediary
Italian	Beginner

Published Papers as Leading Author

2022	An Architecture for Mission Coordination of Heterogeneous Robots - The Journal of Systems
Software	
2019	GoalD: A Goal-Driven Deployment Framework - Information and Software Technology