

# Arthur Cavalcante de Andrade

SOFTWARE ENGINEER · COMPUTER SCIENTIST

Goiânia, Brazil

☎ (+55) 62 99372-4869 | ✉ arthurcandrade@hotmail.com | 📷 arthurdelarge | 🌐 arthurdeandrade

“Be the change you wish to see in the world.”

## Summary

Software Engineer with over 2 years of experience building web applications using Ruby on Rails, Python, and PostgreSQL. I work on scalable APIs, automated testing (RSpec), background jobs, and continuous improvements for systems serving thousands of users in production environments.

I have hands-on experience in Application Security (AppSec), with participation in Bug Bounty programs and CTF competitions, as well as post-graduate training in Cybersecurity and ICT Risk Management. Currently, I contribute to the development of the Risk Management Plan at the Goiás State Court of Justice as part of an IT Residency Program.

My background also includes scientific research in Graph Theory, focusing on computational modeling and complex network analysis. I aim to combine technical expertise, product thinking, and governance practices to build secure, reliable, and strategically aligned solutions.

## Skills

<b>Programming Languages</b>	Ruby, Python, JavaScript, HTML, CSS, Go
<b>Frameworks</b>	Ruby on Rails, Flask, Vue.js
<b>Tools &amp; Technologies</b>	Docker, Git, Github, Bitbucket, Jira, Confluence, Google Workspace
<b>Good Practices</b>	SOLID, Clean Code, Clean Architecture, SSDLC, Test-Driven Development (TDD)
<b>Databases</b>	PostgreSQL, SQLite
<b>Operational Systems</b>	Linux, Windows
<b>Languages</b>	Portuguese (Native), English (Advanced)

## Work Experience

### Court of Justice of Goiás (TJGO)

Goiânia, Brazil - Hybrid

IT RISK MANAGER

Feb. 2025 - Present

- IT Residency Program in partnership with the Federal University of Goiás.
- Working on the formulation of the ICT Risk Management Plan (PGRTIC) for the court.
- Conducting risk analysis for ICT procurements and acquisitions.

### Cilia Tecnologia (Insurtech)

Goiânia, Brazil - Hybrid

SOFTWARE ENGINEER

Feb. 2023 - Present

- Contributing technical knowledge to ensure project scalability and performance.
- Designing and developing RESTful APIs in Ruby on Rails for high-traffic usage, integrating with external systems and third-party services.
- Updating database structures (PostgreSQL), automating tasks, implementing workers, and developing new features and screen flows.
- Fixing bugs and implementing automated tests (RSpec) to ensure the reliability and functionality of all aspects of the software.
- Providing code reviews and promoting best practices.
- Creating and updating documentation of implemented features.

### National Council for Scientific and Technological Development (CNPq)

Goiânia, Brazil - Hybrid

SCIENTIFIC INITIATION RESEARCHER

Sep. 2022 - Aug. 2023

- Research Title: Study of the induced paired domination number for graphs with bounded maximum degree.
- Scholarship holder in the Institutional Scientific Initiation Scholarship Program (PIBIC)
- Conducted studies in graph theory, exploring fundamental concepts, algorithms, and their applications across various areas.
- Implemented computational models that gather data from the internet (web scraping), represent, analyze, and solve problems in graphs.
- Performed analyses of complex networks, investigating structural and behavioral properties.
- Collaborated in the creation of new theorems and conjectures.
- Presented at the 20th UFG Teaching, Research and Extension Congress - CONPEEX 2023.

## Bugcrowd

Remote

BUG BOUNTY HUNTER

Feb. 2022 - Sep. 2022

- Tested web applications for common web application security vulnerabilities, including input validation vulnerabilities, broken access controls, session management vulnerabilities, cross-site scripting issues (XSS), SQL injection, and web server configuration issues.
- Experience with Windows and Linux operating systems (subsystems, kernel and user level processes, networking, Active Directory).
- Experience writing custom codes and scripts.
- Proficient with common attack tools (Burp, SET, Metasploit, Nmap, Nikto, Netcat, Hashcat, Gobuster, GTFobins) and defensive tools (Snort, tcpdump, Wireshark).

## Extracurricular Activities

### Capture The Flag (1st RNP Hackers do Bem CTF)

Goiânia, Brazil

COMPETITOR

Mar. 2024

- Solved challenges involving offensive and defensive security, forensic analysis, malware analysis, reverse engineering, binary exploitation, cryptography, and programming.

### Capture The Flag (Cília CTF 2023)

Goiânia, Brazil

COMPETITOR

Dec. 2023

- Solved challenges using cryptography, steganography, forensic analysis, brute force, social engineering, among other techniques.

### Low Code Hackathon (1st Congress of Professional and Technological Education of the State of Goiás)

Goiânia, Brazil

MENTOR AND TEAM LEADER

Nov. 2023

- I led a group of high school students in designing and developing a solution with a positive environmental impact.
- We developed Aquole, a mobile application integrated with a prototype reservoir responsible for collecting and monitoring water drained from residential gutters, contributing to the reduction of drinking water waste and users' living costs.
- The team won an award in the competition and, months later, the project received investment from an incubator.

## Education

### Postgraduate Degree in IT Processes and Management

Goiânia, Brazil

UNIVERSIDADE FEDERAL DE GOIÁS

2025 - 2027

- Information Security Analysis
- Management and Governance
- ITIL/COBIT Processes
- IT Business Analysis
- IT Risk Analysis
- Automation Specialization

### Postgraduate Degree in Cybersecurity and Data Governance

Belo Horizonte, Brazil

PUC MINAS

2024 - 2025

- Security Methods, Practices and Technologies.
- Secure Development.
- Data Governance.
- Cybersecurity Governance.

### B.S. in Computer Science

Goiânia, Brazil

FEDERAL UNIVERSITY OF GOIÁS

2018 - 2024

- Education Assistant in Algorithm Analysis and Design (Jul. 2021 to Nov. 2021).
- Education Assistant in Computer Networks (May. 2022 to Sep. 2022).
- Programming Marathon Competitor (Oct. 2021 and Mar. 2023).
- Scholarship for Scientific Initiation Research in Graph Theory (Sep. 2022 to Aug. 2023).

## Certifications

- 2024 **Junior Cybersecurity Analyst**, CISCO Networking Academy
- 2024 **Network Technician**, CISCO Networking Academy
- 2023 **Fundamentals of Accelerated Computing with CUDA C/C++**, NVIDIA
- 2022 **C2 Proficient**, EF-SET
- 2022 **Data Privacy and Protection (LGPD)**, SENAI