

# Arthur Cavalcante de Andrade

COMPUTER SCIENTIST · SOFTWARE ENGINEER · RISK ANALYST

Goiânia, Brazil

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## 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>Operational Systems</b>	Linux, Windows
<b>Databases</b>	PostgreSQL, SQLite
<b>Programming Languages</b>	Ruby, Python, JavaScript, HTML, CSS
<b>Usual Frameworks</b>	Ruby on Rails, Jekyll, Vue.js, Bootstrap
<b>Tools &amp; Technologies</b>	Docker, Git, GitHub Actions, Bitbucket, Jira, Confluence, Google Workspace
<b>Good Practices</b>	SSDLC, Clean Architecture, Clean Code, Test-Driven Development (TDD), Prompt Engineering
<b>AI-assistants &amp; MCP</b>	Integrations for code generation, debugging, documentation and automatization.
<b>Languages</b>	Portuguese (Native), English (Proficient)

## Work Experience

### Court of Justice of the State of Goiás

Goiânia, Brazil - Hybrid

IT RESIDENT (RISK MANAGEMENT)

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;
- Designing and developing solutions for risk management, including task automation, data migration, a risk database, and web-based management systems.

### 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;
- Leading in 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 Project: 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.

## Extracurricular Activities

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### Federal University of Goiás

Goiânia, Brazil

HACKATON PARTICIPANT

Nov. 2023

- Managed a team of three high school students during a low-code hackathon at the 1st EPT Congress (CETT/UFG), leading the design and development of a mobile app integrated with a prototype reservoir to collect and monitor rainwater runoff. The project received a podium award and was later incubated by CEI/UFG.

## Education

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### Postgraduate Degree, IT Processes and Management

Goiânia, Brazil

FEDERAL UNIVERSITY OF GOIÁS

2025 - 2027

### Postgraduate Degree, Cybersecurity and Data Governance

Belo Horizonte, Brazil

PUC MINAS

2024 - 2025

### B.S., Computer Science

Goiânia, Brazil

FEDERAL UNIVERSITY OF GOIÁS

2018 - 2024

## Certifications

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- 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