Guilherme Soares

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https://guilhas07.github.io

Summary

I'm a software engineer passionate about cybersecurity, open source and self-hosting, that wants to improve their backend development skills. My recent work focuses on building secure RESTful APIs and optimizing garbage collection in Java. I enjoy collaborative environments and aim to drive innovation through code contributions. You can explore my contributions and projects on my Github profile.

Languages: Portuguese (Native), English (Fluent)
Programming Languages/Frameworks: Java, C, C++, C#, Python, JavaScript, Lua, Spring Boot, Node.js, SQL
Tools: Git, Docker

Work Experience

Backend Intern | Caixa Mágica | June 2023 – August 2023

- Designed and developed a RESTful application in C# with secure user authentication and management, implementing best security practices to ensure data integrity and confidentiality.
- Took an active role in shaping the project direction by collaborating with fellow interns and supervisors, offering insights, proposing solutions, and ensuring alignment with organizational goals for optimal outcomes.
- Utilized Docker to containerize and streamline the deployment process, enabling easy scalability and efficient development workflows.
- **Skills**: C#, MySQL, Git, Docker, Team Collaboration

Projects

BestGC++

- Improved Java application performance by developing a Web Application that selects the best Garbage Collector for a given Java application with 83% accuracy.
- Designed and implemented a live metrics dashboard providing developers real-time insights into their application performance, including Heap Usage, CPU utilization, and I/O metrics.
- **Skills**: Java, Spring Boot, JavaScript, Git, Software Optimization

BenchmarkGC

- Designed and implemented a benchmarking tool to evaluate Java applications, collecting performance metrics and scoring all Java Garbage Collectors (GCs) based on execution time and GC pause duration.
- Aggregated key Garbage Collector statistics, including pause count, total pause time, 90th percentile pause duration, and other metrics, providing developers with actionable insights into application performance.
- **Skills**: Python, Git, Data Analysis, Software Optimization

BioDrive

- Designed and implemented the BioDrive backend for NEBIST using Node.js, integrating FenixAPI and JWT for secure authentication and Google Drive API to enable seamless collaboration and efficient resource sharing among Bio-Engineering students of Instituto Superior Técnico.
- Minimized maintenance overhead by leveraging GitHub Actions to automate updates and ensuring reliable deployment workflows.
- **Skills:** Node.js, Bootstrap, Git

Education

MSc Computer Science And Engineering | November 2024 | Instituto Superior Técnico

- Specialized in Cybersecurity and Distributed Systems
- Grade: 17/20

Erasmus Internship | February 2024 - July 2024 | Universitet I Oslo

- Developed thesis "BestGC++: Optimizing Garbage Collection Selection Through Benchmarking" focusing on improving Garbage Collector selection in Java environments to enhance application performance.
- Collaborated in a multicultural environment with international researchers, enhancing cross-cultural communication and fostering diverse perspectives in tackling complex research challenges.
- Utilized English as the primary language for communication, contributing to my fluency and confidence in a professional, international environment.

Bachelors Computer Science And Engineering | July 2023 | Instituto Superior Técnico