

João Raul Furtado Lucas

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PROFESSIONAL SUMMARY

Back-End Software Engineer specializing in high-performance financial systems, real-time data processing, and database optimization. Proven track record of delivering measurable impact: reduced critical SQL Server workloads by 80% (processing 3-4M records), accelerated data ingestion pipelines by 35%+, and eliminated recurring data integrity defects through architectural refactoring. Strong expertise in Delphi, SQL Server, WebSocket-based real-time systems, and back-office trading platforms. Currently expanding skill set in Artificial Intelligence and cloud technologies (Azure/AWS) to drive intelligent automation and scalable solutions. Seeking Back-End/Software Engineer roles in high-throughput, low-latency environments.

Core Competencies: Performance Optimization • Real-Time Data Systems • SQL Server Tuning • Legacy System Refactoring • WebSocket Communication • Financial Trading Systems

PROFESSIONAL EXPERIENCE

Nelogica | Porto Alegre, RS, Brazil

Software Developer (Back-End/Delphi) | Jun 2024 – Present

- Re-architected critical SQL Server workflow processing 3-4M financial records (historical trading operations), optimizing indexing strategy and query logic across 10-15 tables to reduce execution time by 80% (from 15+ minutes to approximately 3 minutes), improving data freshness for back-office operations serving 10-15 internal users
- Refactored core JSON generation module to a dynamic, modular architecture, eliminating recurring data integrity defects and reducing long-term maintenance overhead by 40%+; improved developer productivity and system reliability
- Optimized performance bottlenecks in WebSocket-based data ingestion routines (daily batch processing at approximately 1,000 records/sec), achieving 35%+ average processing time reduction through SQL Server profiling, query tuning, and batching strategies
- Implemented proprietary instrumentation for application observability, enabling proactive performance monitoring and faster root-cause analysis of bottlenecks

Tech Stack: Delphi, SQL Server 2022, WebSocket (proprietary library), Git, GitLab CI, SQL Server Profiler, Stored Procedures/Functions/Views, Custom Integration Testing Framework

IFSUL | Pelotas, RS, Brazil

Object-Oriented Programming Tutor | Aug 2023 – Dec 2023

- Mentored 5+ students on core Object-Oriented Programming (OOP) principles in Java, covering encapsulation, inheritance, polymorphism, and design patterns
 - Provided hands-on guidance on debugging, code structure, and applying theoretical concepts to practical projects, contributing to a 90%+ pass rate and strong student feedback on clarity and engagement
 - Facilitated weekly code review sessions, fostering best practices in clean code and problem-solving strategies
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KEY PROJECTS

apps4tea – Educational Application for Children with Autism | IFSUL

Full-Stack Developer | Aug 2022 – Jan 2023

- Contributed to technological migration of an educational app from HTML/JS to C# with Unity, focusing on improving user experience (UX) for young children with autism
- Developed 1 core interactive screen with 3 gameplay features over 6 months, emphasizing intuitive navigation, visual clarity, and accessibility
- Collaborated with UX designers and educators to ensure age-appropriate content and engagement mechanics; application successfully published (link unavailable)

Tech Stack: C#, Unity, User Experience Design

TECHNICAL SKILLS

Languages: Delphi, C#, SQL, Java, Python, JavaScript

Databases & Data: SQL Server (2022), MySQL, MongoDB, Firebase | Stored Procedures, Functions, Views, Indexing & Query Optimization

Real-Time & Communication: WebSocket (proprietary library), XML, JSON processing

Development & Collaboration: Git (GitLab), GitLab CI, Custom Integration Testing (Delphi)

Concepts: Object-Oriented Programming (OOP), Performance Tuning, Batch Processing, ETL,

Legacy System Refactoring, Agile Methodologies

Tools & Profiling: SQL Server Profiler, Execution Plans, Custom Instrumentation/Observability Tools

Cloud & Certifications (In Progress): Azure (Database/DevOps), AWS (Database/DevOps) – planned certifications

EDUCATION

Postgraduate Specialization in Artificial Intelligence (Lato Sensu)

Universidade Federal de Viçosa | Mar 2024 – Dec 2025 (Expected)

Focus: Machine Learning, Deep Learning, AI applications in software engineering

Associate's Degree in Internet Systems

Instituto Federal Sul-rio-grandense (IFSUL) | Feb 2020 – Dec 2023

Core coursework: Object-Oriented Programming, Databases, Web Development, Software Engineering

Technical Degree in Agriculture

Instituto Federal de Mato Grosso | Feb 2017 – Dec 2019

LANGUAGES

- English: Fluent
 - Portuguese: Native
 - Spanish: Basic
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ADDITIONAL INFORMATION

- **GitHub:** github.com/jrlucas1
- **Certifications (Planned):** Azure Database/DevOps, AWS Database/DevOps
- Open to remote opportunities in Back-End/Software Engineering roles