SERGIO ARTURO AGUILAR BASURTO

SOFTWARE ENGINEER

PROFILE

Dedicated and results-driven Telecommunications and Electronic Engineer with over 3 years of experience in software development. Proficient in object-oriented programming languages such as C++ and Java, with a specialization in C++. Ability to work under pressure while maintaining strong leadership skills. Adaptable team player with a keen aptitude for both leadership and collaboration.

CONTACT

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EDUCATION

– December 2020
Telecommunications and Electronic Engineer
– Tec De Monterrey
– Mexico City, Mexico

KEY SKILLS

- Test Driven Development
- C++ Programming Language
- Java
- Python
- C Programming Language
- Unit Testing
- Matlab & Simulink
- SQL Stored Procedures
- Debugging skills
- GitHub Copilot

PROFESSIONAL EXPERIENCE

Software Engineer II

McDonald's - Mexico
October 2024 – Present

As a Backend Engineer in McDonald's I:

- Maintain and enhance a robust plugin-based architecture to ensure seamless integration and communication between restaurant assets.
- Implement and optimize communication strategies for internal plugins to guarantee reliable and efficient operations across the platform.
- Contribute to the stability and scalability of the Sesame platform, the core system managing restaurant functionalities and asset interactions.

Software Engineer II

teradata - Mexico
October 2022 – October 2024

As a Software Engineer on the Native Object Store (NOS) team at Teradata, I contribute significantly to the evolution of a cloud-based database with a focus on developing innovative features. Key highlights of my role include:

- Scheduler Development: Contributed on the development of a sophisticated scheduler enabling precise execution of jobs at designated times on specific days.
- Boost Parsing Library: Implemented a robust parsing mechanism using the Boost parsing library to interpret input strings, ensuring accurate scheduling of tasks.
- Next Runtime Setting: Developed a comprehensive process for setting the next runtime of scheduled jobs, optimizing job execution efficiency.
- Immediate Post-Job Execution: Innovated and implemented a feature ensuring immediate execution of a subsequent job upon completion of a scheduled task.
- Task-Based Job Handling: Worked on multiple tasks for seamless and comprehensive handling of jobs.
- From Scratch Development: Led the end-to-end development of critical components, including parsing, next runtime setting, and post-job task orchestration, showcasing a strong commitment to initiative and innovation.

ACHIEVEMENTS

John Deere

First App for Harvesting machinery within Mexico's Engineering Center. Developed, tested and integrated first harvesting App for John Deere's Harvester touch display, being the first developed App of Mexico's engineering center.

Integrated full functionality of tilting feature for John Deere Harvesting machinery. Successfully designed, implemented tilting feature for John Deere's Harvesting machinery, such feature allows the vehicle to tilt manually and automatically according field inclination to harvest the most amount of seed.

teradata

Designed and implemented an intricate AFTERJOB feature entirely from inception. This feature facilitates the seamless execution of subsequent tasks immediately upon the completion of a scheduled job, showcasing a high level of technical proficiency and initiative in design and development.

Software Engineer

John Deere - Mexico
October 2021 – October 2022

Played a pivotal role in elevating the capabilities of harvesting machines at John Deere through the innovative development of features utilizing MATLAB, Simulink, and QT. Key achievements during this tenure include:

- Employed Test-Driven Development (TDD) methodologies to ensure robust and reliable software solutions, coupled with rigorous hardware testing to validate code implementations on controllers.
- Pioneered the creation of a comprehensive application from inception, leveraging the QT platform and C++ to establish seamless communication between a display interface and the harvesting machinery. This included the design and implementation of both the user interface and the backend functionality, demonstrating adeptness in software development and engineering.

Business Analyst Intern

P&G - Mexico
August 2020 – December 2020

Engaged in a project focused on the meticulous tracking of a merchandiser's movement across seven stores throughout a fiscal year, employing Oriient Mapping Technology. Key responsibilities for this project encompassed:

- Utilizing Python, specifically its descriptive language capabilities, for the analysis and restructuring of intricate data sets.
- Implementing the Pandas Toolkit to enhance data processing efficiency and streamline analytical procedures.
- Executing comprehensive data manipulation and visualization tasks within Power BI, aiming to derive meaningful business insights and contribute to informed decision-making processes.