

Recommendation for Logisa: AI and the Future of the Pharmaceutical Industry

I am a Systems Engineering student, and I have been fortunate to apply what I learn at Logisa, a company with an incredible vision: reaching the moon. More than just a crazy dream, it is a mindset of growth and continuous improvement.

Although we have not yet implemented artificial intelligence, we have explored how it could help us in the future. In a recent activity, we used ChatGPT to define ideas for an assistant called LGS. This system could automate key tasks such as managing available storage locations, recommending where to place products automatically, and handling expiration label traceability without manual intervention. This would represent a significant improvement in efficiency and control.

What is Artificial Intelligence, and How Can It Be Applied at Logisa?

Artificial intelligence (AI) is a technology that enables machines to learn, reason, and make decisions based on data. Its application in the pharmaceutical industry is key to optimizing processes and improving product safety. Some AI-related technologies that could impact Logisa include:

- **Machine Learning:** Systems that can analyze large volumes of data and predict patterns, such as product demand.
- **Natural Language Processing (NLP):** Allows interaction between humans and machines through virtual assistants and chatbots.
- **Computer Vision:** Uses cameras and AI to inspect products and detect defects in real-time.
- **Robotic Process Automation (RPA):** Software capable of performing repetitive tasks, such as stock control and inventory management.
- **Blockchain for Security and Traceability:** A decentralized registry that ensures the authenticity and origin of medications.

Implementation of LGS at Logisa

LGS would be an AI-based system that would help improve Logisa's efficiency in several areas:

- ✓ **Smart Storage Management:** LGS would identify available spaces in the warehouse and automatically suggest the best location for each product.
- ✓ **Traceability Optimization:** It would automate expiration tracking, reducing the risk of selling expired products.
- ✓ **Inventory Automation:** Using real-time data analysis, LGS could predict product shortages and issue alerts in advance.
- ✓ **Integration with Chatbots:** An AI-based virtual assistant would answer questions about product availability and placement suggestions.

To continue growing, I recommend that Logisa explore these ideas:

- **AI for Customer Service:** Implement chatbots and virtual assistants to answer questions quickly and efficiently.
- **Computer Vision for Quality Control:** Use cameras and algorithms to detect product defects before they reach customers.
- **Blockchain for Traceability:** Ensure that medications are authentic and that their origin is trustworthy.

- **Predictive Analytics in Inventory Management:** Use data to determine what products are needed and when, avoiding waste.
- **Automation with LGS:** Develop and integrate a system that automatically manages storage locations, expiration control, and traceability, optimizing daily operations.

If Logisa follows this path, its goal of reaching the moon is not impossible. With the right combination of technology and innovation, we can make the company even more efficient and a leader in the industry.