Ali Lara

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- Austin, TX

Summary

Experienced Chemical Engineer specializing in process improvement and optimization. Proficient in applying statistical and mathematical modeling to enhance operational efficiency. Skilled in leading teams to achieve productivity gains and streamline workflows. Demonstrated ability in leveraging tools such as Matlab, Hysys, and Python for data-driven process enhancement. Bilingual in English and Spanish with a focus on continuous improvement and team collaboration.

Skills

- **Process Improvement**: Lean, Six Sigma, Process Optimization, Workflow Enhancement.
- **Technical Skills**: Matlab, Hysys, Python, Statistical and Mathematical Modeling.
- **Project Management**: Team Leadership, Strategic Planning, Performance Monitoring.
- **Languages**: Fluent in English and Spanish.

Experience

Amazon Logistics (Austin, TX) Nov 2020 - present

Roles: Associate Area Manager (Mar 2023 - Present), Yard Marshal (Dec 2021 - Mar 2023), FC Associate (Nov 2020 - Dec 2021)

- **Rapid Career Advancement**: Demonstrated exceptional performance and leadership, progressing quickly through increasingly responsible roles within Amazon’s logistics operations.
- **Operational Efficiency and Team Leadership**:
- Led diverse teams (up to 75 members) in high-pressure environments, processing up to 135,000 packages daily. Managed all aspects of inbound workflow, loading/unloading systems, and yard management.
- Enhanced operational efficiency and productivity through strategic planning and resource allocation, resulting in significant improvements in processing rates and safety standards.
- **Data-Driven Process Improvements**:
- Developed and implemented Python-based data analysis tools, automating key operational tasks and supporting data-driven decision-making.
- Created and utilized predictive models and Excel-based tracking tools to optimize package distribution and reduce process defects by 75%.
- Implemented a random forest model for package distribution, reducing ADTA-related errors by 20% and non-productive time by 25%.

- **Training and Development**:

- Coached and mentored associates on performance standards, safety protocols, and operational best practices, contributing to a culture of continuous improvement and learning

Chemical Engineer, MCL Control (Venezuela) May 2012 - Sep 2019

- Engineering support for creating mathematical models and simulating gas/oil processes using commercial process simulators
- Shaped machine learning algorithms to develop predictive models and optimize the performance of advanced control algorithms for gas/oil processes
- Assisted researchers team in engineering a standard workflow for implementing non-parametric statistical models in oil/gas processes
- Engineered neural network models in Python/Tensorflow to estimate physical parameters required by process simulations to improve the application performance
- Mentored 10+ junior engineers over one year on using XGBoost and random forest models to optimize the feature selection for machine learning projects
- Gathered information, identified analytical requirements, and developed data-driven based models to translate complex business needs into actionable analytic projects

Lecturer, Universidad Central of Venezuela, Venezuela Mar 2005 - Nov 2020

- Researched chemical reaction engineering, mathematical modeling, simulation and optimization, process synthesis and design using machine learning techniques for industrial process evaluation
- Lectured in several chemical engineering areas, including thermodynamics, chemical reactor design, numerical methods, industrial process simulation, and statistical modeling
- Proposed a problem-solved learning experience in different subjects following the ABET guidance.
- Coached 200+ chemical engineering undergraduates with regards to academic pathways and toward degree completion and established and provided career counseling for a network of cooperatives, internships, and externships to foster academic to-industry pipeline

Latest Projects

- **Logistics Process Automation (2023)**: Developed tools to optimize logistics operations, leading to improved workflow efficiency.
- **Solar Hydrogen Production Plant Design (2020)**: Researched sustainable energy solutions, focusing on process efficiency and optimization.
- **HAZOP Study Facilitation Tool (2021)**: Created a tool to enhance HAZOP studies for industrial process safety.
- **Performance Prediction in Industrial Processes (2019)**: Utilized machine learning for predictive modeling in turbo-compressor operations.

Education

Universidad Central of Venezuela, M.Sc. Chemical Engineering - 2008

Universidad Central of Venezuela, B.Sc. Chemical Engineering - 1998