

# ALESSANDRO OLIVEIRA DE SOUSA

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## Skills

- Python | SQL | Power BI | Tableau | DAX | m | Power Query | Microsoft Excel | RPA | R | MySQL | PostgreSQL | MS SQL Server
- Data Analytics | Data Science | Data Visualization | Business Intelligence | Statistics | Predictive Modeling | Machine Learning
- Data Preprocessing | ETL | Data Transformation | Statistical Analysis | Data Wrangling | Feature Engineering
- Regression Analysis | Time Series Analysis | Expenditure analysis | Hypothesis Testing | A/B Testing
- Communication (written and oral) | Collaboration | Teamwork | Project Management | Problem Solving | Bilingual: English, Portuguese

## Experience

<b>Director</b>	<b>Department of Health of the Federal District</b>	<i>Brasília, DF, BR</i>	<b>03/2024 - Current</b>
<ul style="list-style-type: none"><li>• Direct the Directorate of Drug and Health Supplies Planning of the Department of Health of the Federal District, which oversees a network of 14 hospitals, district reference units, and more than 170 primary healthcare units (neighborhood clinics) serving 4.8 million patients. The Directorate itself is composed of 4 departments and a total of 60 people.</li><li>• Responsible for managing a budget of approximately \$100M (around R\$ 600M) allocated for the purchase of medications, hospital supplies, laboratory materials, orthoses, and prostheses.</li><li>• Developed inventory monitoring methodologies for each hospital and healthcare unit, including alerts to ensure stock redistribution and triggers for the procurement of supplies for centralized replenishment using <b>SQL, PostgreSQL, Python, Power BI and Tableau</b>.</li><li>• Redesigned the statistical methods used in predictive modeling of demand for medications and supplies, as well as the budget required to cover these expenses, in order to better reflect consumption patterns and allocate public funds accordingly using <b>Python and Power BI</b>.</li><li>• Automated tools for monitoring bidding processes and procurement procedures using <b>Python and Power BI</b>.</li></ul>			
<b>Manager</b>	<b>Department of Health of the Federal District</b>	<i>Brasília, DF, BR</i>	<b>11/2023 - 03/2024</b>
<ul style="list-style-type: none"><li>• Managed the Orthotics and Prosthetics Planning Department, a team of 12 people, responsible for budgeting, contract management, and monitoring the surgical and outpatient use of orthotics and prosthetics in the hospitals of the Department of Health of the Federal District.</li><li>• Developed dashboards to assist in monitoring the use of surgical and outpatient orthotics in the hospitals of the network using <b>Power BI and Tableau</b>.</li><li>• Used statistical analysis to develop tools for optimizing the demand forecasting of orthotics and prosthetics.</li></ul>			
<b>Analyst / Advisor</b>	<b>Department of Health of the Federal District</b>	<i>Brasília, DF, BR</i>	<b>12/2020 - 12/2023</b>
<ul style="list-style-type: none"><li>• Developed methodologies for monitoring inventory and contract balances, as well as dashboards to provide information to assist in decision-making by senior management using <b>Python and Power BI</b>.</li><li>• Implemented metrics and key performance indicators related to the use of medications and supplies, as well as their dispensing to patients in outpatient or inpatient care across each of the hospitals in the network using <b>SQL, PostgreSQL, Python, Power BI and Tableau</b>.</li><li>• Assisted in mapping and implementing risk management for public procurement processes.</li><li>• Reported directly to the Undersecretary of Health, acted as Deputy Undersecretary of Health.</li></ul>			

## Education

<b>PhD in Genetics</b>	<b><u>University of Brasilia</u></b>	<i>Brasília, DF, BR</i>	<b>08/2008 - 07/2012</b>
<b>Bachelor of Pharmaceutical Sciences</b>	<b><u>University of Brasilia</u></b>	<i>Brasília, DF, BR</i>	<b>08/2003 - 07/2008</b>

## Projects

- YellowLynx MedCorp - Analysis of medicine usage in an integrated hospital network.
- Comparison of public spending on medications across different states in Brazil.

## Mentorship

- University of Brasília: Master's and undergraduate students in the graduate program in Molecular Pathology at the Faculty of Medicine.
- Department of Health of the Federal District: guidance for new professionals and training on the technologies used in routine activities,

## Others

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