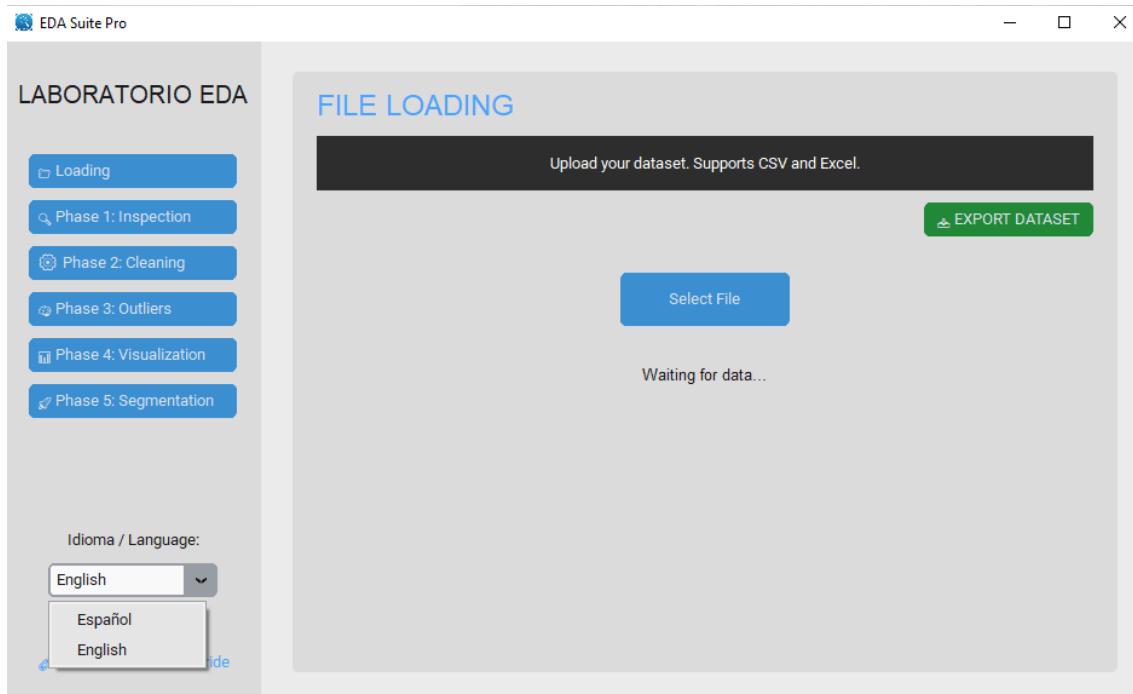


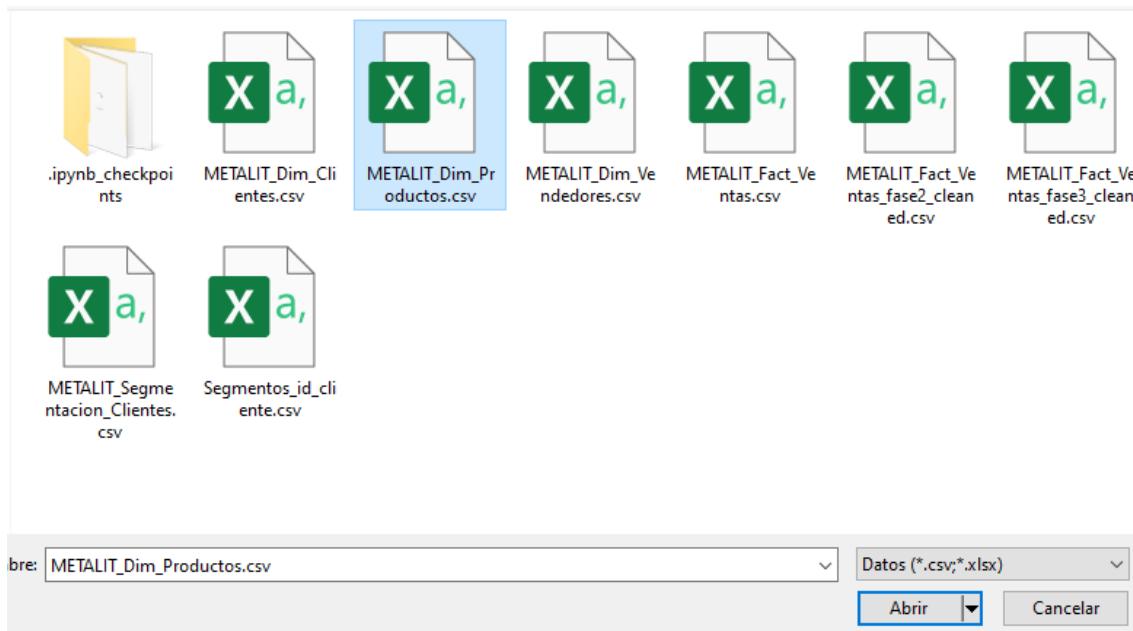
# EDA Suite Pro: Manual de Operación y Guía Visual de Usuario

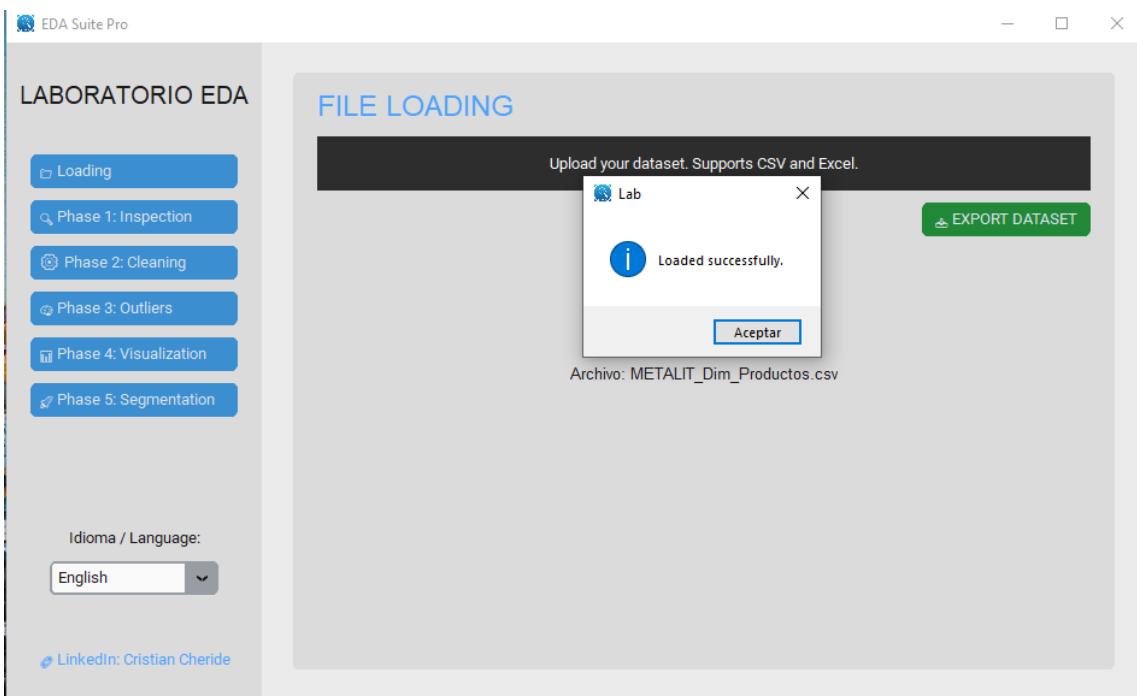
**Sidebar y Multilenguaje** "Panel lateral de navegación con el selector de idioma activo, permitiendo cambiar toda la interfaz entre Español e Inglés instantáneamente."

**Fase 0 - Módulo de Carga** "Interfaz principal de la Fase 0 lista para recibir un dataset en formato CSV o Excel."



**Selección de Archivo** "Explorador de archivos del sistema permitiendo al usuario elegir el conjunto de datos para el análisis."





**Fase 1 - Diagnóstico Inicial (Reporte 360)** "Vista de la Fase 1 mostrando el conteo total de filas, columnas y un resumen general de la salud del dataset."

The screenshot shows the EDA Suite Pro application window. The sidebar is identical to the previous screenshot. The main area is titled 'PHASE 1: DIAGNOSTICS' with the sub-instruction 'Initial data quality analysis.' Below this are three buttons: 'Reporte 360', 'View Nulls', and 'View Duplicates'. A large text box displays diagnostic information:

```
Total Filas: 3086
Total Columnas: 14

Nulos:
id_transaccion      0
fecha               0
id_cliente          62
id_vendedor         93
id_producto         0
cantidad            0
precio_lista_unitario  0
descuento_pct       0
precio_final_unitario  0
total_venta         0
costo_total         0
 margen_total        31
estado_pedido       0
canal_venta         0
dtype: int64

Duplicados: 46
```

**Fase 1 - Mapa de Nulos y Duplicados** "Auditoría detallada que identifica exactamente qué columnas tienen datos faltantes y cuántas filas están repetidas."

The screenshot shows the EDA Suite Pro application window. The top navigation bar includes the title "LABORATORIO EDA" and standard window controls. On the left sidebar, there is a vertical list of five phases: "Loading", "Phase 1: Inspection", "Phase 2: Cleaning", "Phase 3: Outliers", "Phase 4: Visualization", and "Phase 5: Segmentation". Below this list is a section labeled "Idioma / Language:" with a dropdown menu set to "English". The main content area is titled "PHASE 1: DIAGNOSTICS" and contains a dark box with the text "Initial data quality analysis.". Below this box are three blue buttons: "Reporte 360", "View Nulls", and "View Duplicates". To the right of these buttons is a green button labeled "EXPORT DATASET". In the bottom-left corner of the main content area, there is a small table titled "MAPA DE NULOS:" with the following data:

id_cliente	62
id_vendedor	93
margen_total	31

[LinkedIn: Cristian Cheride](#)

**Fase 2 - Normalización de Texto** "Uso de la herramienta 'UPPER & Strip' para limpiar espacios en blanco y estandarizar textos a mayúsculas de forma masiva."

The screenshot shows the EDA Suite Pro interface. On the left, a sidebar titled "LABORATORIO EDA" lists five phases: Loading, Phase 1: Inspection, Phase 2: Cleaning, Phase 3: Outliers, Phase 4: Visualization, and Phase 5: Segmentation. Below this is a language selection dropdown set to "English". At the bottom of the sidebar is a LinkedIn link. The main area is titled "PHASE 2: CLEANING" and contains a sub-header "Text normalization and format correction.". It features three tabs: "Normalize", "Duplicates", and "Formulas", with "Normalize" selected. A button labeled "UPPER & Strip" is visible. A dropdown menu is open, showing the option "0 - id\_transaccion". Below the dropdown are buttons for "Date", "Integer", and "Decimal". A green "EXPORT DATASET" button is located in the top right corner.

This screenshot is identical to the one above, but the "Duplicates" tab is now selected in the Phase 2 interface. The other tabs ("Normalize" and "Formulas") are dimmed. The rest of the interface, including the sidebar and language selection, remains the same.

**Fase 2 - Imputación Estadística de Nulos** "Menú de selección para rellenar datos faltantes utilizando métodos como la Media, Mediana o Moda."

**Fase 2 - Editor de Fórmulas Personalizadas** "Aplicación de lógica matemática directa sobre las columnas para resolver nulos mediante cálculos específicos."

The screenshot shows the EDA Suite Pro software interface. On the left, there's a sidebar titled 'LABORATORIO EDA' with five tabs: 'Loading', 'Phase 1: Inspection', 'Phase 2: Cleaning' (which is selected and highlighted in blue), 'Phase 3: Outliers', and 'Phase 4: Visualization'. Below these tabs is a language selection dropdown labeled 'Idioma / Language:' with 'English' selected. At the bottom of the sidebar is a link 'LinkedIn: Cristian Cheride'. The main window is titled 'PHASE 2: CLEANING' and contains a sub-header 'Text normalization and format correction.' There are three tabs at the top of this window: 'Normalize', 'Duplicates', and 'Formulas' (which is selected and highlighted in blue). Below these tabs is a dropdown menu showing '11 - margen\_total'. Underneath the dropdown are four buttons: 'Mean', 'Mediana', 'Moda', and 'Zero'. Below these buttons is another dropdown menu showing '9 - 10'. At the bottom of the window is a blue button labeled 'Aplicar Fórmula Lab'.

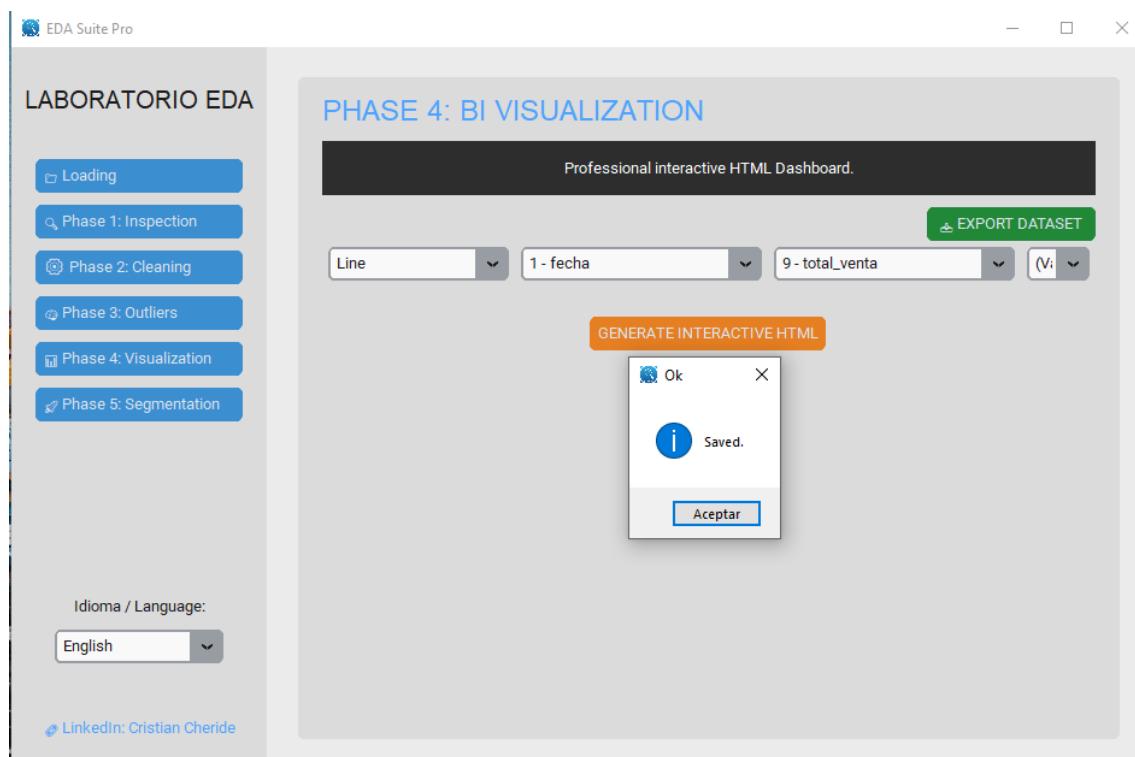
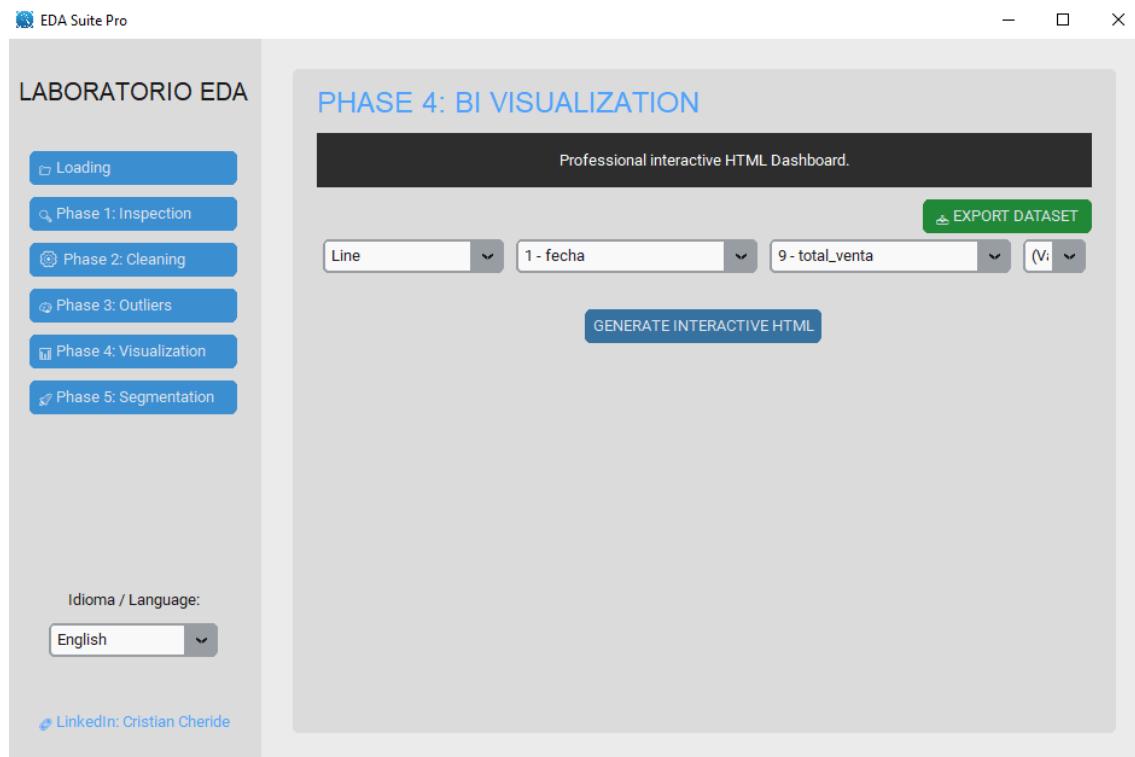
**Fase 3 - Escaneo Global de Outliers** "Ejecución del diagnóstico automático que analiza todas las columnas numéricas simultáneamente en busca de valores atípicos."

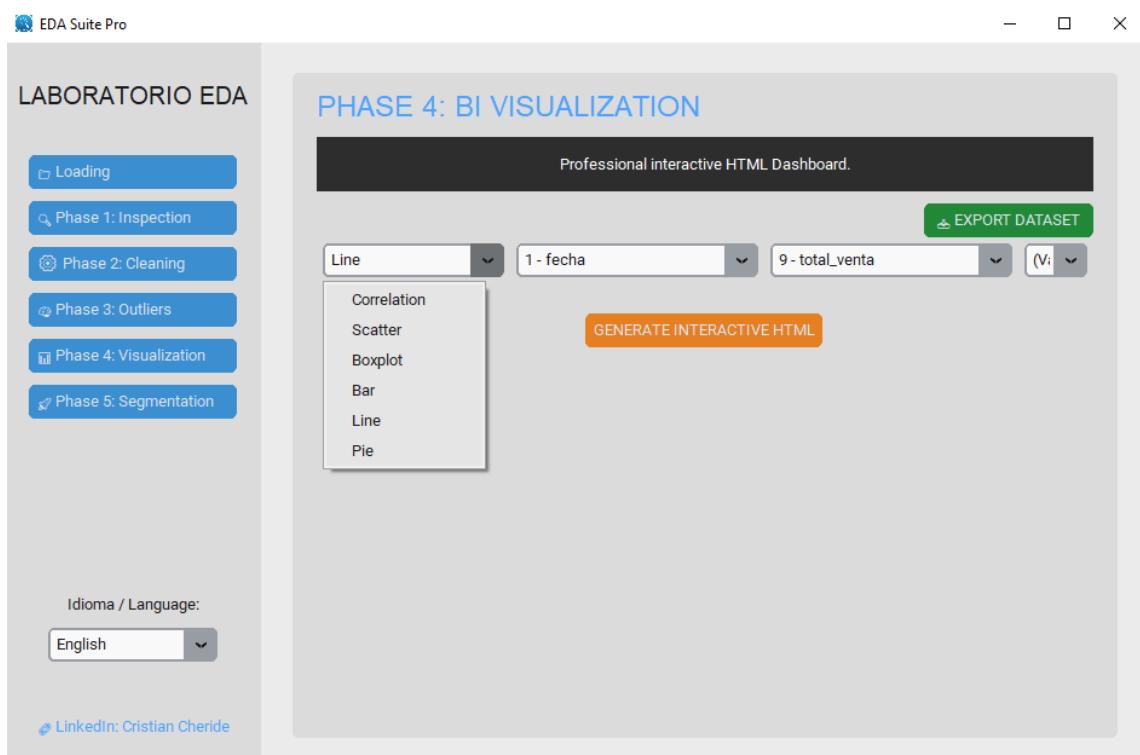
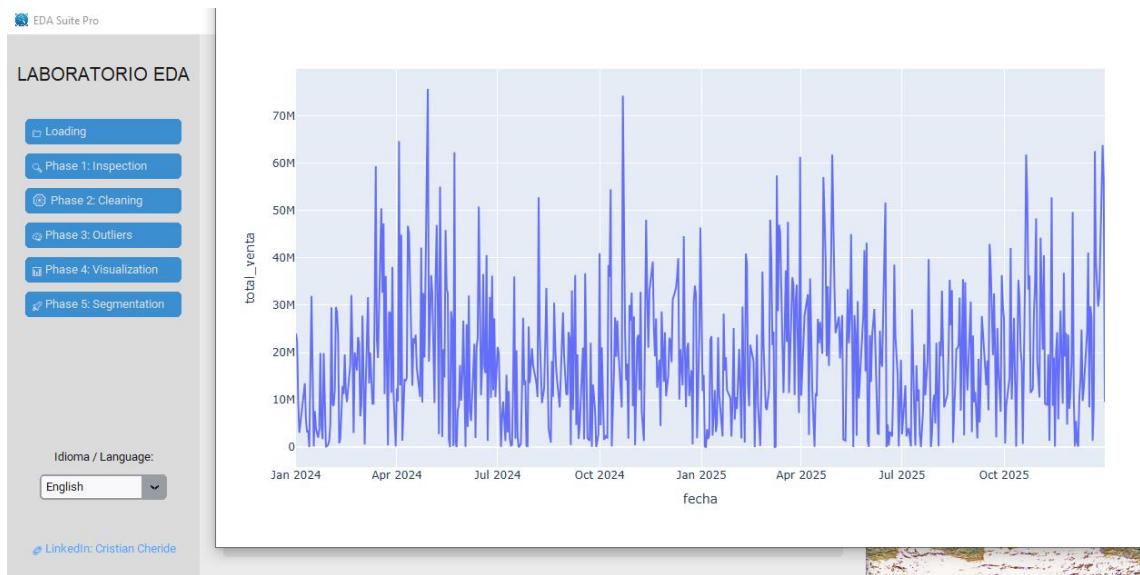
**Fase 3 - Ajuste de Sensibilidad (IQR)** "Manipulación del slider de sensibilidad para definir qué tan estricto será el filtro de detección de outliers (Factor K)."

The screenshot shows the EDA Suite Pro interface. On the left, a sidebar titled 'LABORATORIO EDA' lists phases: Loading, Phase 1: Inspection, Phase 2: Cleaning, Phase 3: Outliers (selected), Phase 4: Visualization, and Phase 5: Segmentation. Below this is a language selection dropdown set to 'English'. At the bottom left is a LinkedIn profile link for 'Cristian Cheride'. The main panel is titled 'PHASE 3: OUTLIERS (GLOBAL)' with a sub-instruction 'Massive scan for outliers.' A green 'EXPORT DATASET' button is in the top right. A horizontal slider is set to '1.5' under the heading 'Sensibilidad (Factor IQR) - Estándar: 1.5'. A blue 'SCAN ALL COLUMNS' button is below the slider. A text area displays the results of the scan: '--- SCAN (IQR x 1.5) ---' followed by '=> cantidad: 3', '=> descuento\_pct: 29', '=> margen\_total: 15', and 'TOTAL: 47'. At the bottom of the main panel are buttons for 'Delete Rows', 'Winsorize', and 'Impute Median'.

This screenshot is similar to the previous one but includes a modal dialog box in the center. The dialog has an 'Ok' button at the top left, a message 'Applied.', and an 'Aceptar' (Accept) button at the bottom right. The background panel remains the same, showing the Phase 3 settings and the scan results.

**Fase 4 - Configuración de Gráficos BI "Selector de parámetros para visualización: elección de ejes (X, Y, Z), tipo de gráfico y variable de color."**

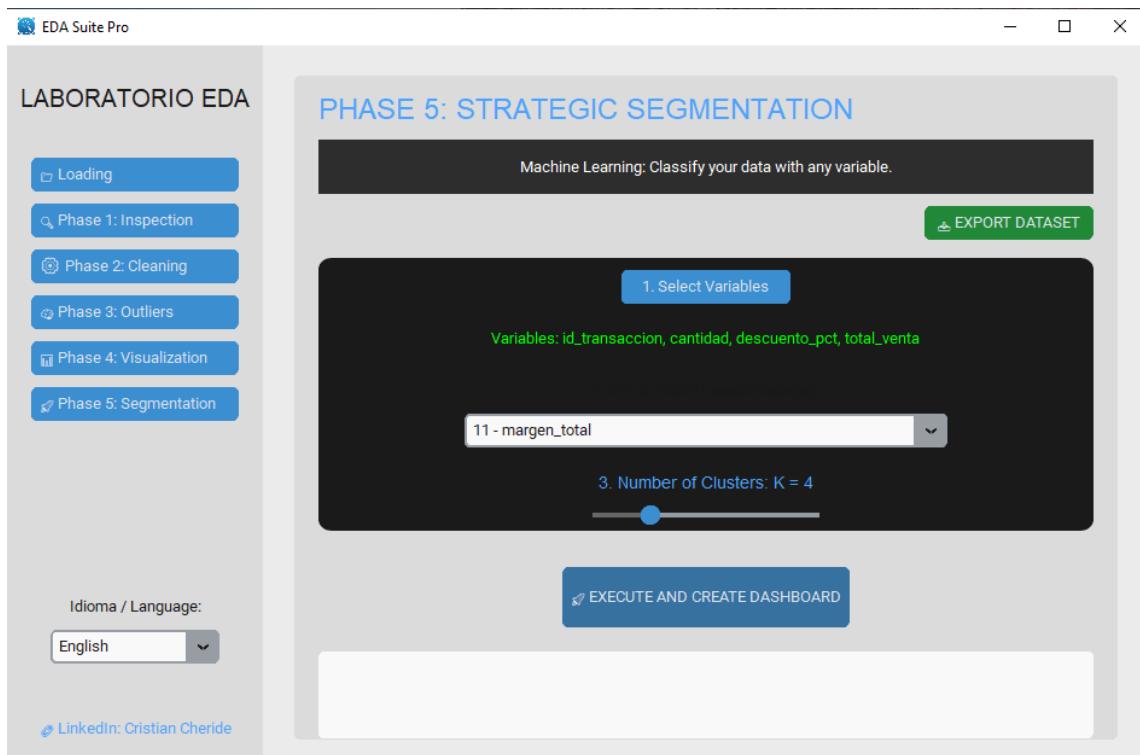
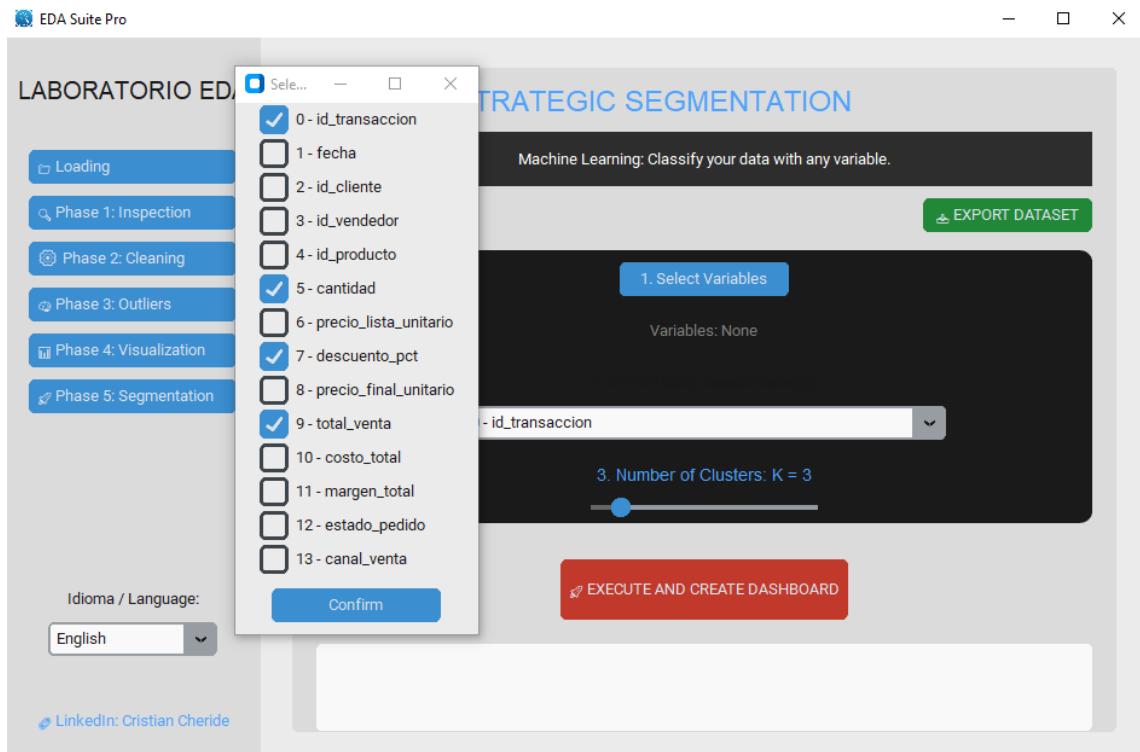




**Fase 5 - Selección de Variables para Segmentación** "Ventana emergente que permite al usuario elegir qué columnas (incluyendo IDs o texto) se usarán para el modelo de Machine Learning."

**Fase 5 - Configuración de Clusters (K=X)** "Ajuste del número de grupos deseados mediante el slider dinámico con etiqueta de confirmación en tiempo real."

**Ejecución de Algoritmo K-Means** "Consola de resultados mostrando los promedios de cada segmento generado y la asignación de grupos al dataset."



**Dashboard 3D Interactiva** "Visualización tridimensional de la segmentación, donde el tamaño y color de las burbujas representan el KPI de éxito seleccionado."

