**🧾 🎯 Project Title: CUSTOM MULTI DIMENSIONAL DATA VISUALIZER  
📅 Project Timeline:** June 2024 – July 2024  
🎥 YouTube Demo: <https://www.youtube.com/watch?v=intNARrkcDM>  
📦 GitHub Source Code: <https://github.com/IvanSicaja/2024.10.06_GitHub_PRJ_Custom-Multi-Dimensional-Data-Visualizer>  
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🏷️ My Personal Profiles: ⬇︎  
🎥 Video Portfolio: To be added  
📦 GitHub Profile: <https://github.com/IvanSicaja>  
🔗 LinkedIn: <https://www.linkedin.com/in/ivan-si%C4%8Daja-832682222>  
🎥 YouTube: <https://www.youtube.com/@ivan_sicaja>  
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### 📚🔍 Project description: ⬇︎⬇︎⬇︎

### 💡 App Purpose

A custom-built interactive data visualization tool that allows users to analyze multi-dimensional datasets (2D & 3D). The tool was designed for flexible dataset exploration, custom plotting, and professional presentations.

### 🧠 How It Works

* Load any Excel dataset with **event-based features** and **source metadata**.
* Select which **datasets** and **features** to visualize through a **Tkinter-based interface**.
* Supports both **2D (X, Y)** and **3D (X, Y, Time)** feature visualization.
* Provides **automatic figure placement (2x2 shifting)** for multiple plots, with additional 10% downward shift for bottom-row figures.
* Enables **custom titles** and **rotational controls** for 3D visualization (elevation & azimuth).
* Generates **legends for datasets and features** dynamically.
* Uses a **consistent soft pastel color scheme** for datasets, ensuring clarity and professional visuals (20 predefined soft colors, randomized extension if more).

### ⚠️ Note

* Rotation settings are only enabled when **3D features** are selected.
* **Slow for big datasets**, app is Python based. 😊

### 🔧 Tech Stack

**pandas, matplotlib, mpl\_toolkits.mplot3d, tkinter, tkinter.ttk, matplotlib.patches, numpy, openpyxl**

### 📸 Project Snapshot

Not available.

### 🎥 Video Demonstration

Not available.

### 📣 Hashtags Section

**# #Python #DataVisualization #MachineLearning #DataScience #Tkinter #Matplotlib #Pandas #OpenSource #IvanSicaja #Excel**