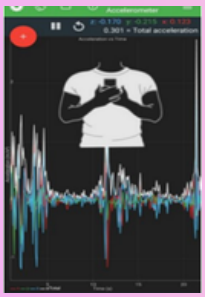
BRAUDE
College of Engineering, Karmiel

Gait detection

student: Lital Leschinsky
25-1-R-7
supervisors: Dr.Julia Sheidin, Dr.Avital Shulner Tal



Data Source

Data was collected via smartphone sensors during walking – providing high-frequency acceleration readings across X, Y, Z axes.

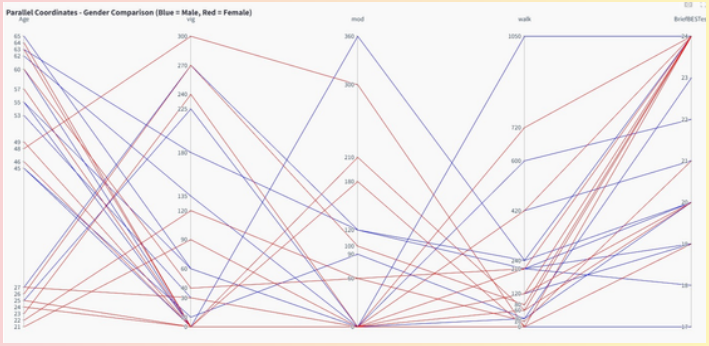
Technologies & Tools

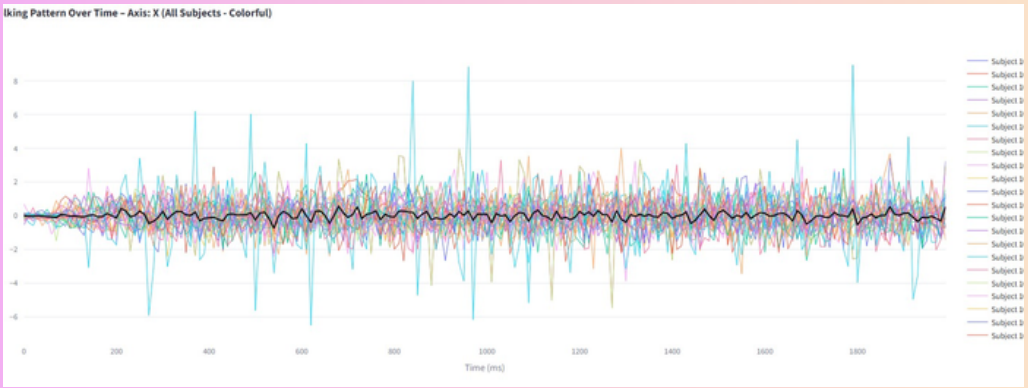
Python (pandas, plotly, seaborn)
Streamlit dashboard
GitHub + Streamlit Cloud
Graph types: Time-Series, Pie, Parallel Coordinates.
Data from 27 participants (Ariel University).

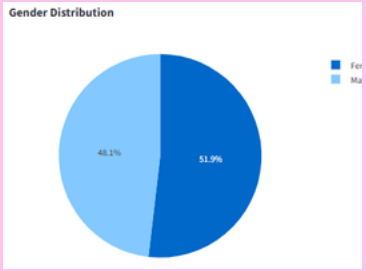
Background – The Problem

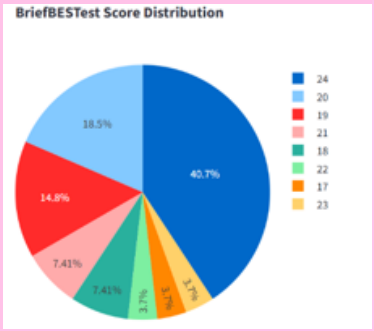
Gait data from sensors is rich but hard to interpret.
Clinicians lack accessible tools to analyze walking stability.

Need: a visual system to explore gait trends by person and group.









Challenges

Choosing the right visualization.
Streamlit has limited interactivity.
Complex data: 4 rows per subject, 2000 columns.