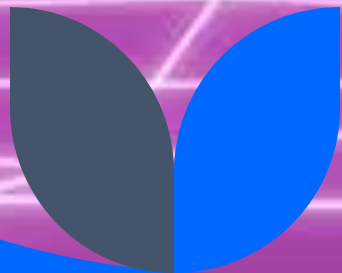




Economic Impact of Video Games: A Big Data Approach Using Global Sales Data

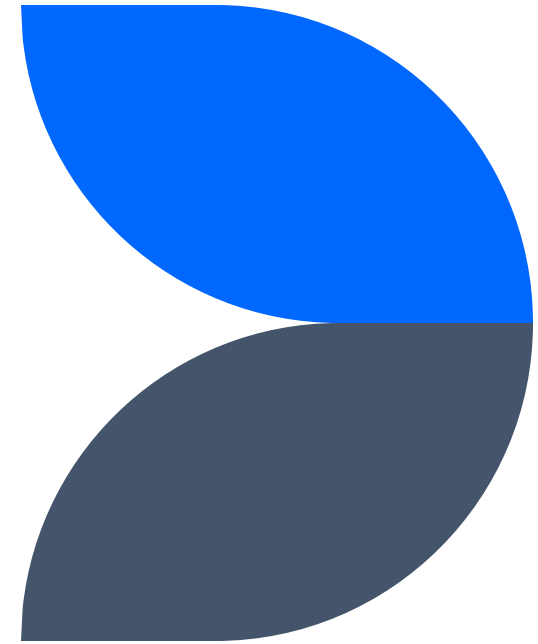
Vasco Silva-1240499



Introduction

Literature Review

Digital Entertainment
Socio-Cultural impact
Consumer trends
Impact on GDP



50 YEARS OF VIDEO GAME REVENUE

1970-2022

(Inflation Adjusted, 2022)



PAC-MAN

1982

Pac-Man is the highest-grossing game for the third year in a row

1983-85

Oversaturation of low quality games crashes the industry, as console revenues fall over 90% from 1983 to 1985

STREET FIGHTER II

1991-94

Street Fighter II and *Mortal Kombat II* are released, with congressional hearings on violent video games soon after

2003

Valve launches Steam, a digital PC games store

Steam has 120 million active users and generated an estimated \$8.6B in revenue in 2023



2011-13
Minecraft (2011) and *GTA 5* (2013) release, becoming the first and second best-selling games of all time

2007

The iPhone launches as handheld revenues peak and are overtaken by mobile games

2016

Launch of the first VR headset of the modern era, the *Oculus Rift*

VR/AR
\$5B

2020

Among Us becomes a pandemic phenomenon as lockdowns push game revenues higher

Games like *Genshin Impact* refine the formula of free-to-play with microtransactions

\$101B
in 2022

Mobile

2017

Fortnite launches and popularizes the battle pass system

\$45B

PC

\$30B

Console

Arcade

1971

Arcades adopt video games with early classics like *Computer Space* and *Pong*

1977

The Atari 2600 is released, bringing *Space Invaders* and *Pac-Man* into homes with swappable game cartridges

1989

Nintendo launches the *Game Boy*



Dataset Description

Video Game Sales 1978-2024

Name

Genre

NASales

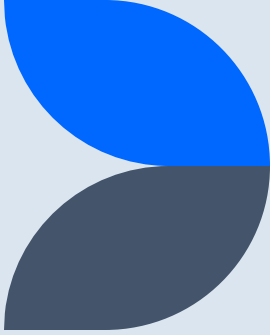
EUSales

JPSales

OtherSales

GlobalSales

TECHNOLOGY & FRAMEWORK SELECTION



Programming Language



Data Processing Frameworks



Data Visualization Tools



Version Control and Collaboration

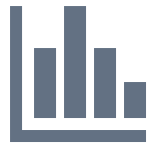


Optional and Supportive Tools

DATA INTEGRATION & ENRICHMENT STRATEGY



Primary Dataset



Supplementary
Data Sources

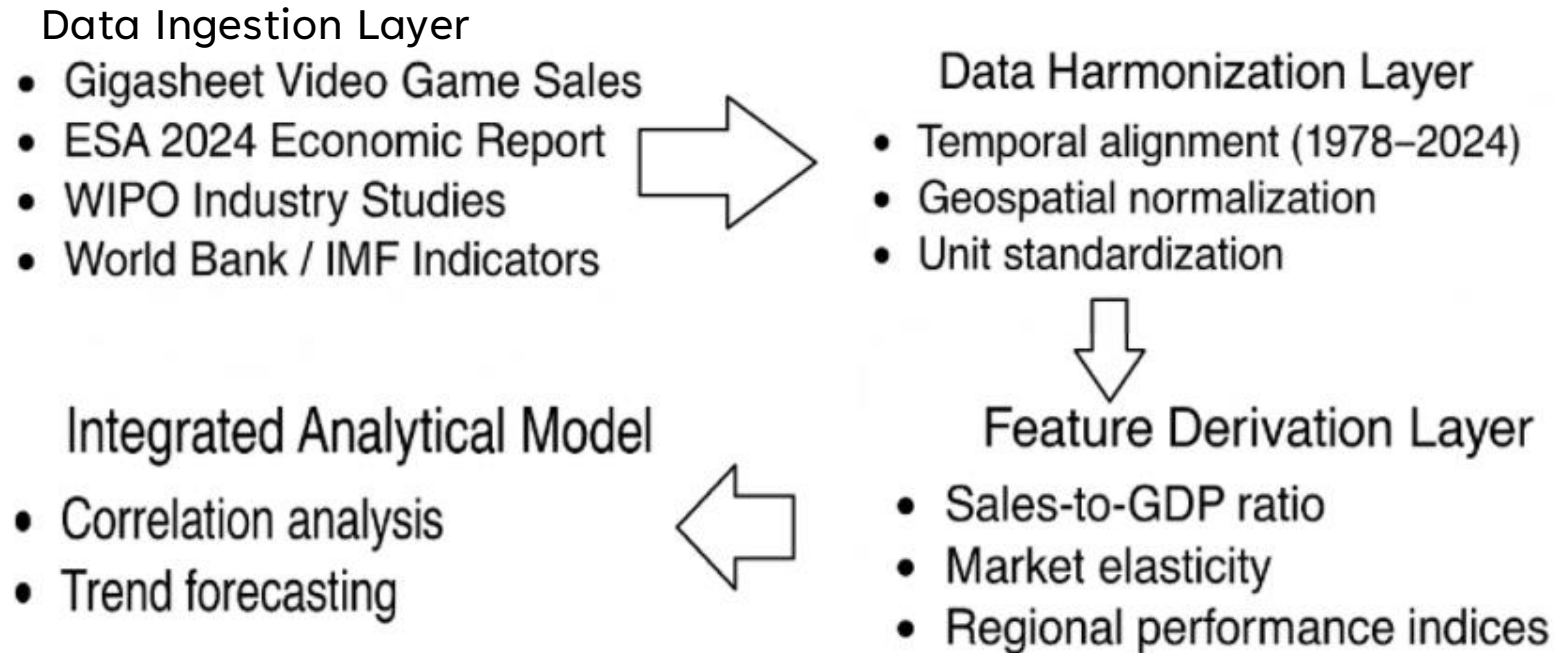


Data Linking and
Enrichment Process



Analytical
Objectives

PROPOSED BIG DATA ARCHITECTURE



Methodology



Data Acquisition



Data
Preprocessing



Feature
Engineering and
Aggregation



Analytical
Modelling



Visualization and
Reporting



Validation and
Reproducibility

RESULTS & DISCUSSION



Regional Market Dynamics
Platform Evolution
Genre and Publisher Trends
Analytical Modelling
Economic Influence
Limitations

Thank you