# Avner Gomes

Forest Engineer

Data Scientist

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Forest Engineer
Data Scientist

## Education

- Master in Data Science, Nuclio Digital School, 2023;
- MBA | Forest Precision Management, UFPR, 2018
- Forest Engineering, UFPR, 2013

## Recent Professional Experience

- **UpWork** - 2022 - Current
  Professional Freelancer
- **IDR-Paraná** - 2018 - Current
  Forest Engineer - State Program Coordinator
- **Solufor** - 2016 - 2018
  Forest Consultant (Inventory and FSC Certification)

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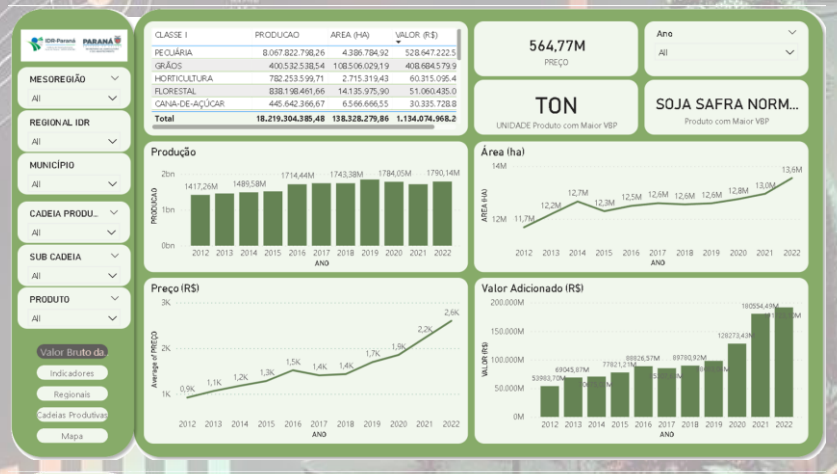
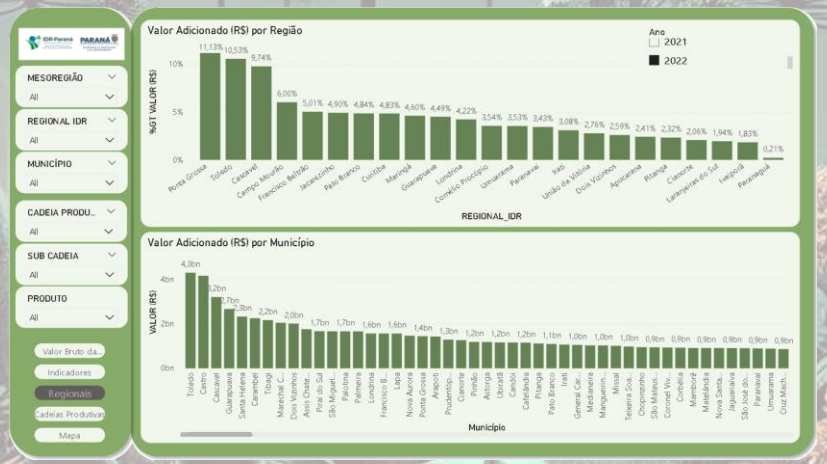
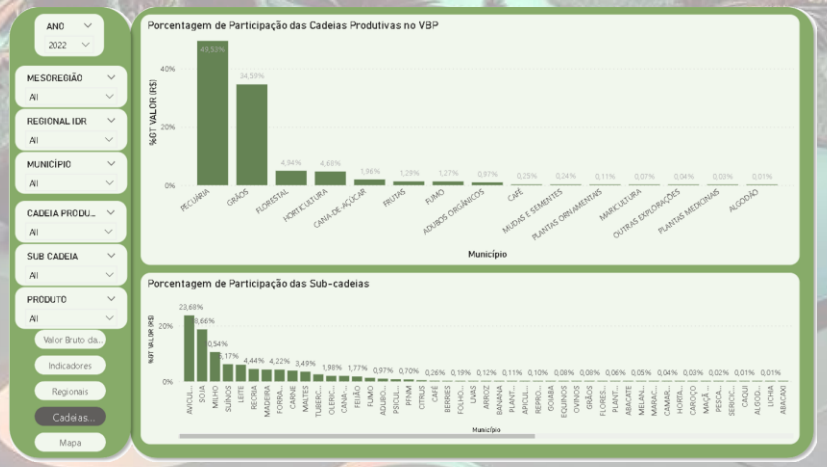
# Main Projects

## Dashboard - Gross Production Value - Paraná








### Development Stages

- Web scraping and ETL
- Cleaning and Transformation
- Visualization

### Main Benefit

Support in defining priority production chains for Institutional Planning and drafting Cooperation Terms with Municipalities.

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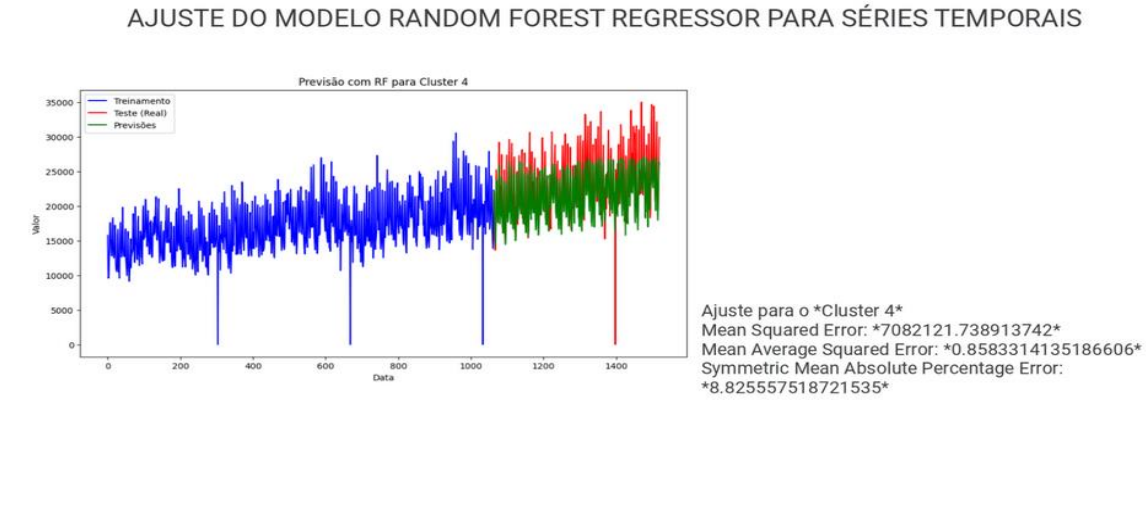
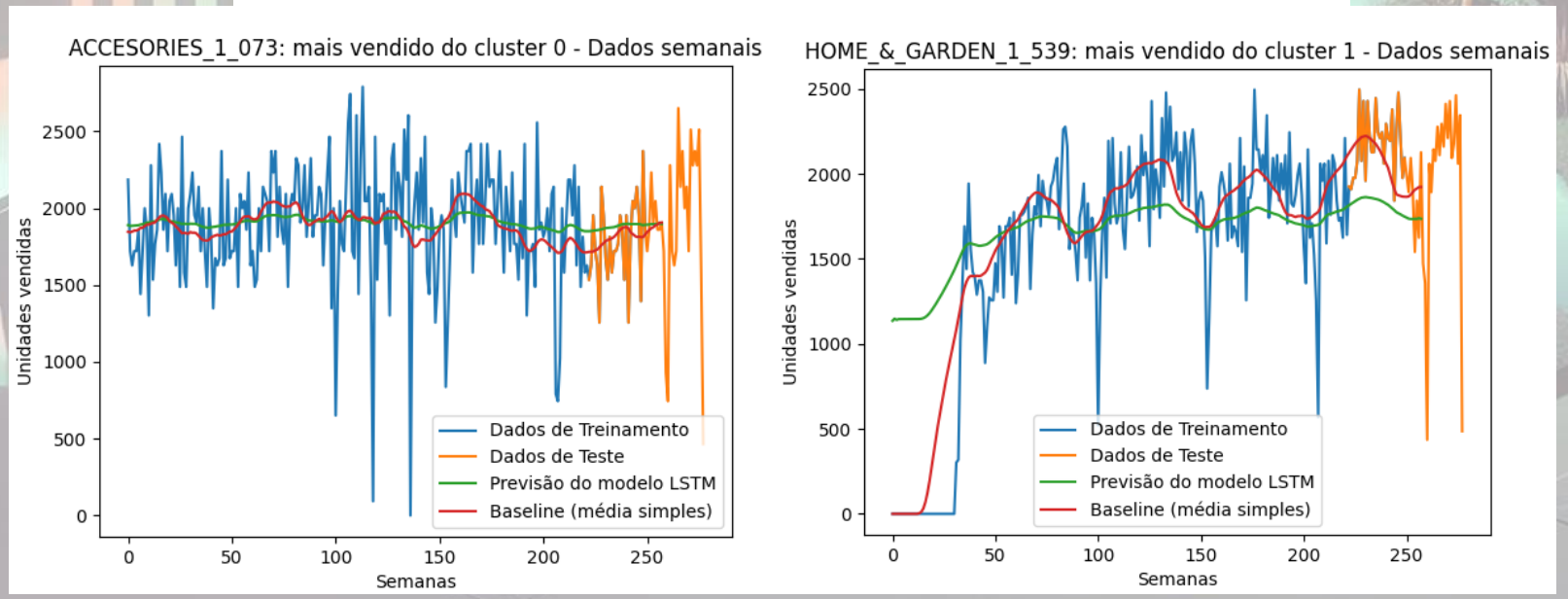
# Main Projects

## Capstone Project – DSMarket (Data Science Master's)




### Development Stages

- Exploratory Data Analysis (EDA)
- Clustering
- Forecasting
- Deployment

### Main Benefit

- Helped design a pilot re-supply strategy for supermarkets.
- Delivered a full end-to-end pipeline: from raw data to actionable insights and executive presentation.

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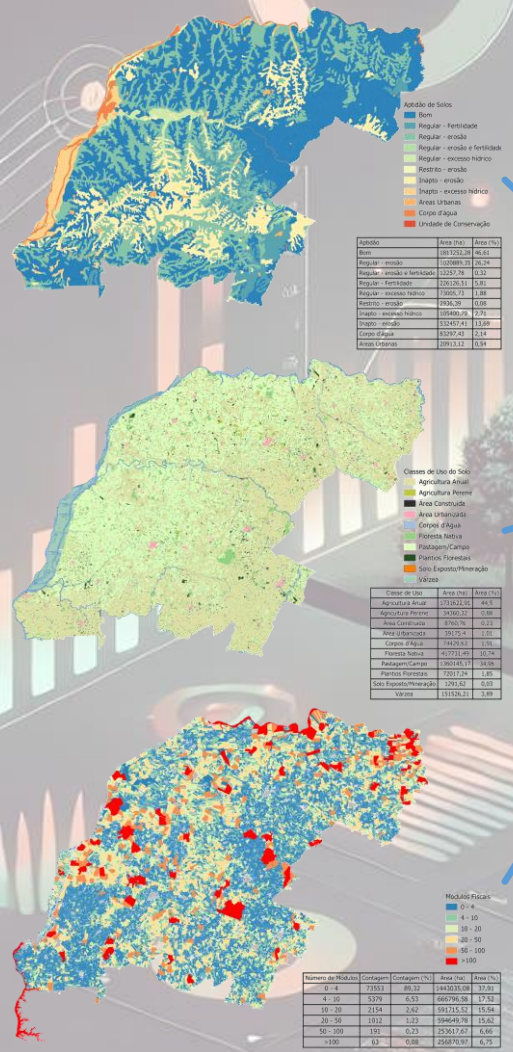
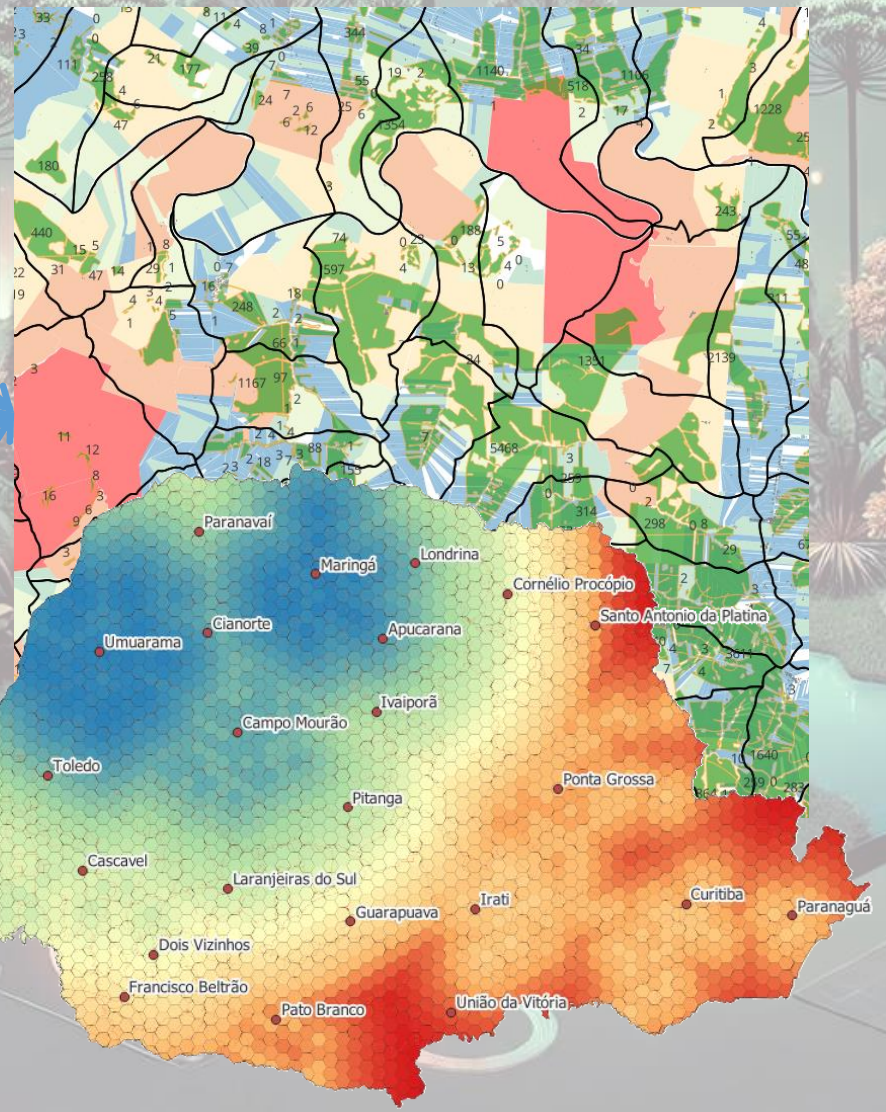
# Main Projects

## Forest Development Plan




### Development Stages

- Intersection of different layers of georeferenced information to define potential areas for the implementation of forest plantations.

### Main Benefit

Identification of higher-risk areas based on implementation costs and the decline in the price paid (at the consumer end) due to transportation costs.

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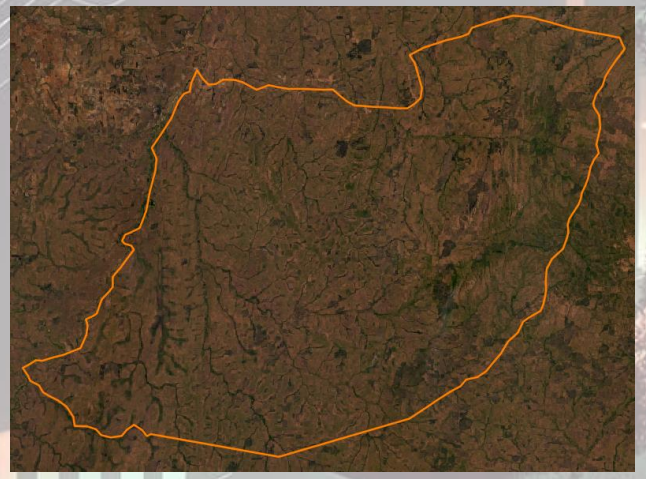
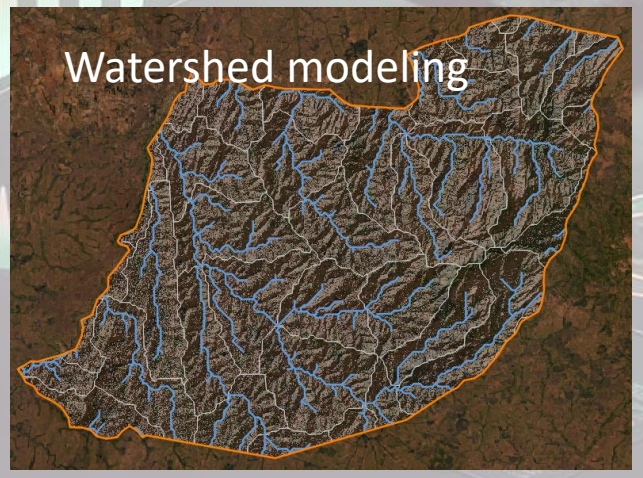
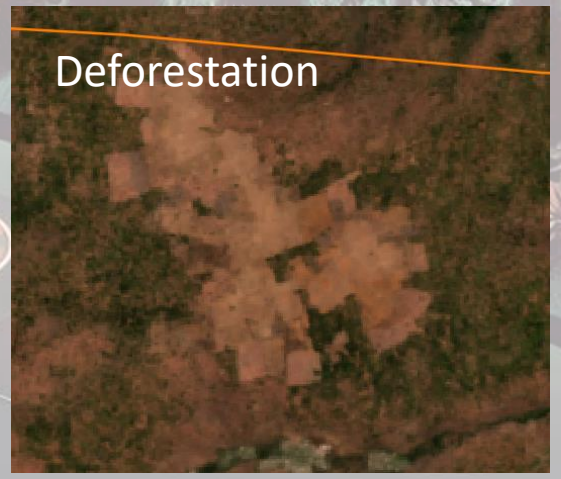
# Main Projects

Evaluation of Potential Area for Forest Restoration and Carbon Credit Generation - IN PROGRESS*




**Development Stages**

- Identification of the area of interest
- Collection of secondary data
- Acquisition of temporal images
- Measurement of deforested areas
- Estimation of carbon sequestration potential through restoration

**Main Benefit**

Verification of the feasibility of the project, based on storage capacity and the costs of land purchase and seedling planting.

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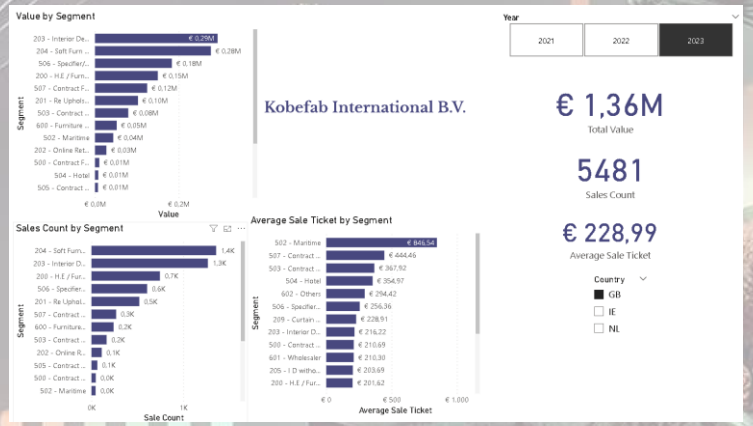
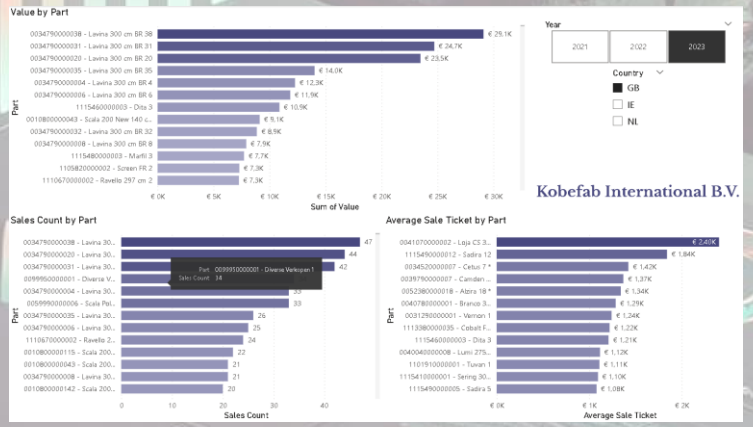
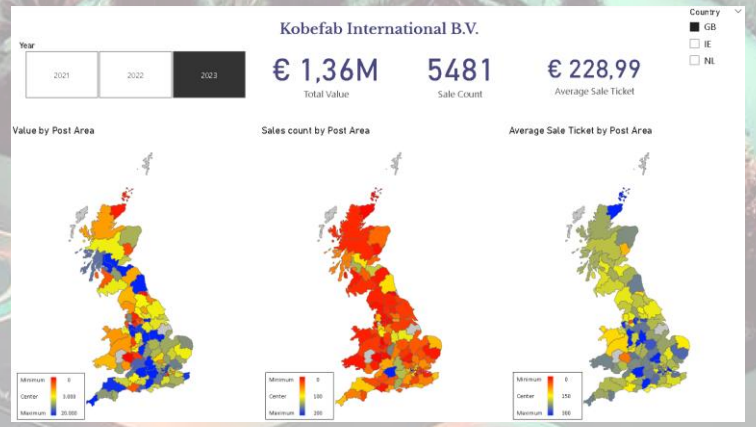
# Main Projects

## Business Inteligence








### Development Stages

- Data Cleaning and Transformation
- Dashboard creation based on the client's needs

### Main Benefit

Spatial distribution patterns by product, customer, region, and employee.

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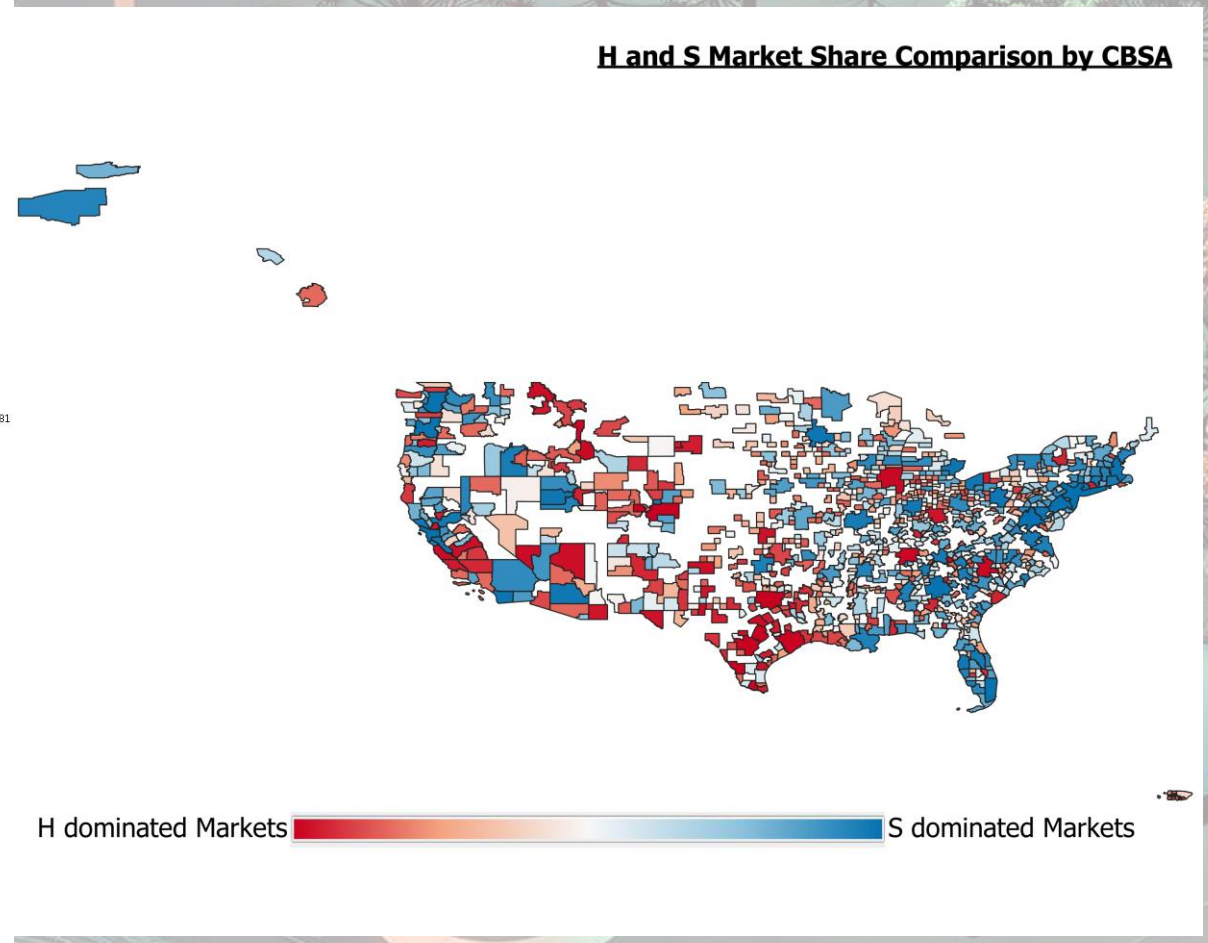
# Main Projects

## Commercial Data Visualization and Market Share Comparison

| | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|---|
| 12:00 AM | 1 | 1 | 6 | 5 | 4 | 3 | 2 |
| 1:00 AM | 1 | 2 | 4 | 3 | 3 | 3 | 2 |
| 2:00 AM | 1 | 1 | 2 | 3 | 2 | 2 | 1 |
| 3:00 AM | 1 | 1 | 2 | 2 | 1 | 2 | 1 |
| 4:00 AM | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 5:00 AM | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 6:00 AM | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 11:00 AM | 0 | 1 | 1 | 1 | 1 | 1 | 0 |
| 12:00 PM | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| 1:00 PM | 1 | 3 | 2 | 2 | 2 | 2 | 1 |
| 2:00 PM | 1 | 4 | 3 | 2 | 3 | 3 | 2 |
| 3:00 PM | 1 | 4 | 4 | 4 | 3 | 3 | 2 |
| 4:00 PM | 2 | 5 | 5 | 4 | 3 | 5 | 2 |
| 5:00 PM | 2 | 5 | 4 | 4 | 4 | 5 | 2 |
| 6:00 PM | 2 | 5 | 5 | 5 | 5 | 5 | 2 |
| 7:00 PM | 2 | 5 | 6 | 5 | 5 | 4 | 3 |
| 8:00 PM | 2 | 6 | 5 | 6 | 5 | 4 | 2 |
| 9:00 PM | 2 | 6 | 7 | 6 | 5 | 4 | 2 |
| 10:00 PM | 2 | 7 | 7 | 5 | 5 | 4 | 2 |
| 11:00 PM | 2 | 7 | 6 | 5 | 4 | 3 | 1 |
| TOTAL | 25 | 65 | 75 | 68 | 60 | 57 | 31 | 381 |

| | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|---|
| 12:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 3 | 1 | 2 | 1 | 2 | 0 |
| 9:00 AM | 0 | 4 | 3 | 2 | 2 | 2 | 1 |
| 10:00 AM | 0 | 6 | 4 | 4 | 4 | 5 | 1 |
| 11:00 AM | 0 | 7 | 5 | 5 | 5 | 5 | 1 |
| 12:00 PM | 0 | 7 | 6 | 5 | 4 | 5 | 1 |
| 1:00 PM | 0 | 7 | 6 | 5 | 5 | 4 | 1 |
| 2:00 PM | 0 | 7 | 5 | 4 | 5 | 4 | 1 |
| 3:00 PM | 0 | 6 | 5 | 5 | 4 | 5 | 1 |
| 4:00 PM | 0 | 7 | 5 | 4 | 5 | 5 | 1 |
| 5:00 PM | 0 | 5 | 4 | 4 | 4 | 3 | 0 |
| 6:00 PM | 0 | 4 | 3 | 3 | 2 | 2 | 1 |
| 7:00 PM | 0 | 2 | 2 | 2 | 2 | 2 | 0 |
| 8:00 PM | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 3 | 65 | 51 | 47 | 45 | 44 | 9 | 263 |




### Development Stages

- Data Cleaning, Transformation, and Visualization of Customer Contact Data (phone calls and emails)
- Market Share Comparison of Companies in the Apparel and Accessories Sector

### Main Benefit

Support in decision-making regarding the customer service team and marketing planning for different regions of the country.

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# Main Projects

Consulting for WebGIS Platform Development

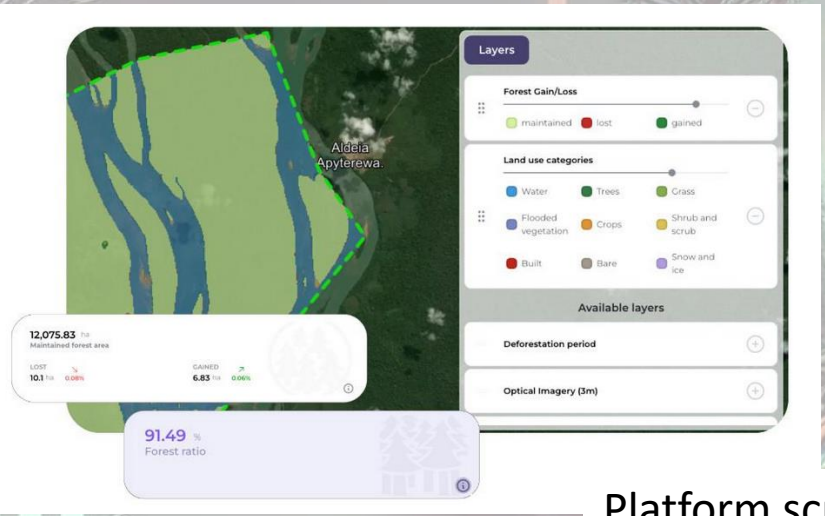


Image source: Orbify

Platform screen images

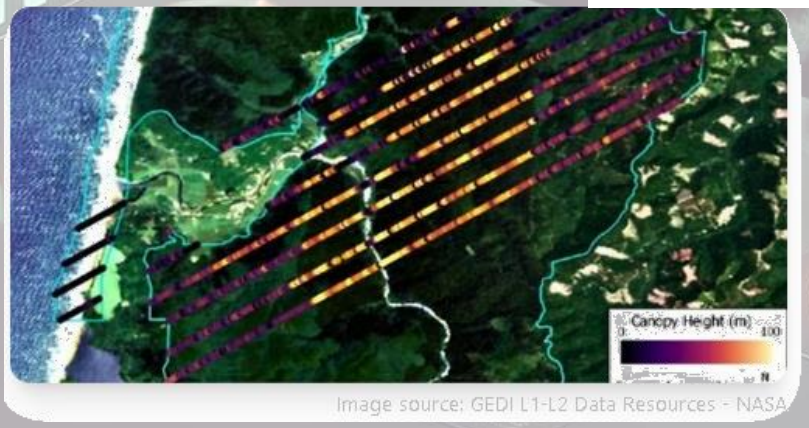


Image source: GEDI L1-L2 Data Resources - NASA

Image source: Orbify

## Development Stages

- Usability testing (customer perspective) and improvement suggestions for a WebGIS tool for visualization and generation of indicators based on satellite images

## Main Benefit

Support for platform development with suggestions and new ideas.

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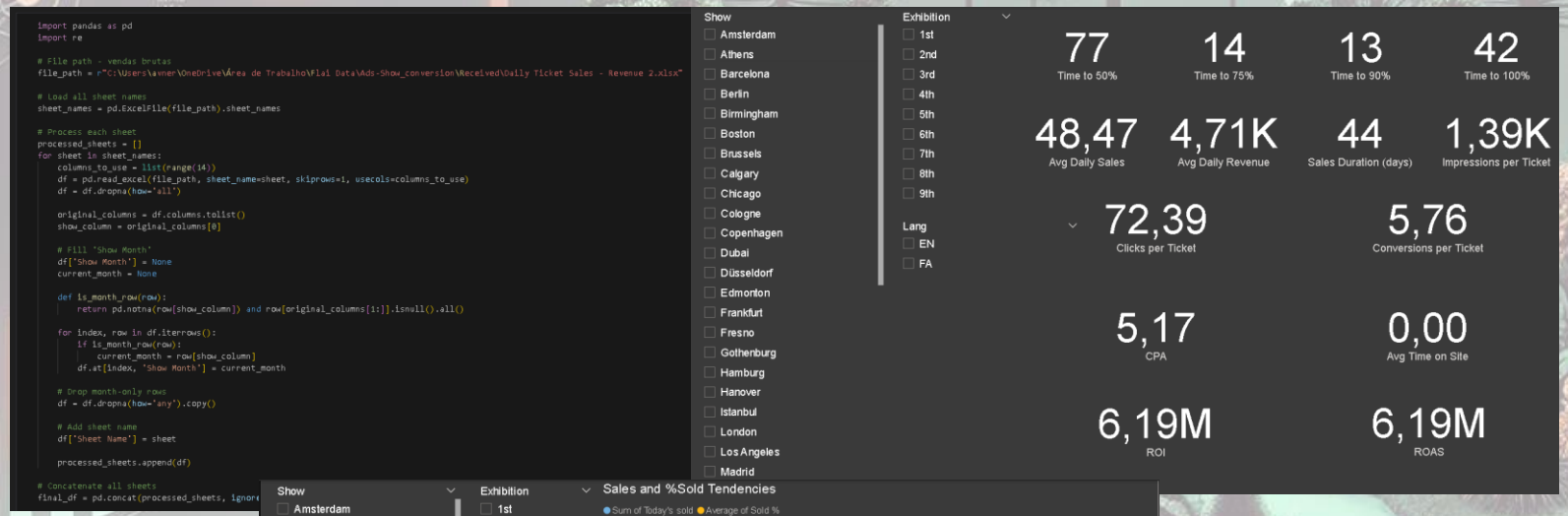
Data Scientist

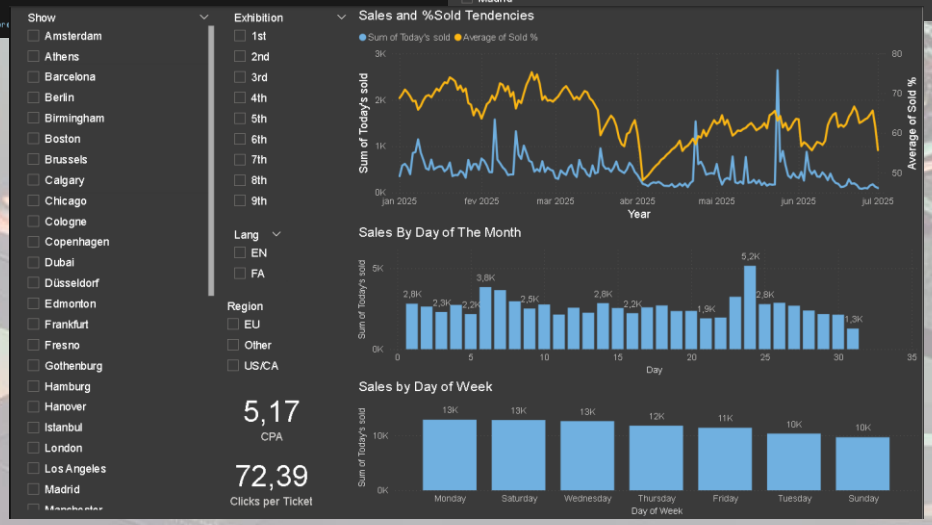
# Main Projects

## Multi-Channel Ads & Ticket Sales Analytics (Google, Meta, TikTok)










### Development Stages

Developed an end-to-end workflow covering data extraction, cleaning, integration across ad platforms, transformation into standardized metrics, and performance analysis of ticket sales by show and city.

### Main Benefit

Enabled clear visibility of ad spend efficiency and ticket sales performance across platforms, supporting data-driven decisions to optimize ROI and sales velocity.

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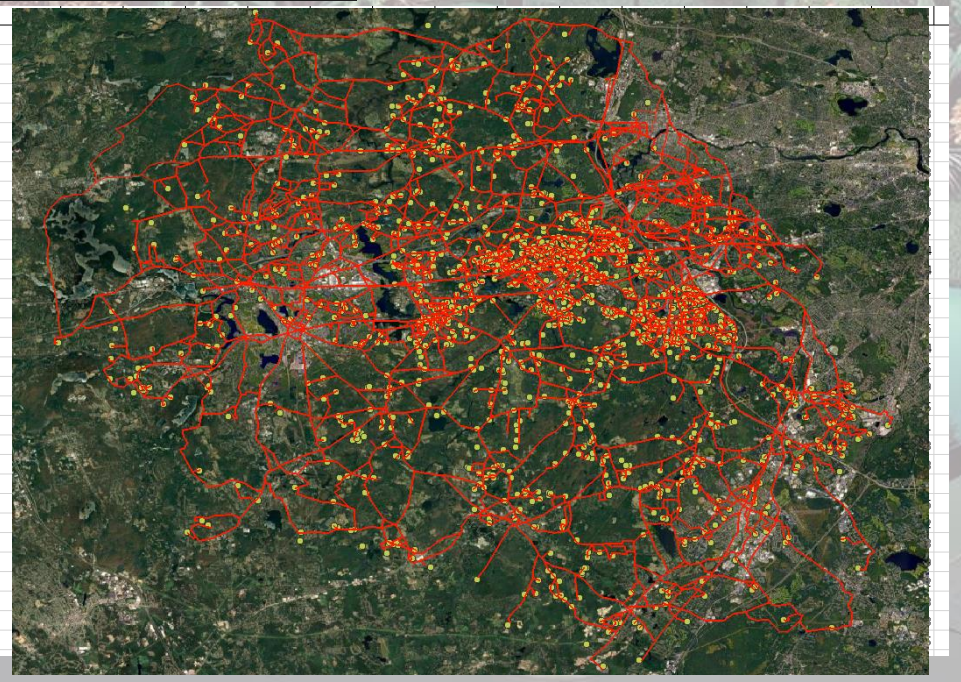
# Main Projects

## Distance & Duration Matrix Development for Route Planning

```
1314631 valid pairs to process...
Downloading OSM network...
OSMnx routing: 100%|          | 1314631/1314631 [30:59:34<00:00, 11.78it/s]
2902 pairs failed with OSMnx. Trying ORS...
ORS fallback: 100%|          | 2902/2902 [11:33<00:00,  4.19it/s]
Distance matrix saved: Updated_Matrix_OSM_ORS_AllPairs.xlsx
Duration matrix saved: Duration_Matrix_OSM_ORS_AllPairs.xlsx
Routes saved to GeoPackage: All_Routes.gpkg
Log file saved: failed_pairs_log.txt
```

| | 1x | 2x | 4x | 5x | 6x | 7x | 8x | 9x | 11x |
|---|---|---|---|---|---|---|---|---|---|
| 1x | | 0 | 3,82 | 5,45 | 5,47 | 5,88 | 4,93 | 7,02 | 9,23 |
| 2x | 0 | | 3,82 | 5,45 | 5,47 | 5,88 | 4,93 | 7,02 | 9,23 |
| 4x | 3,82 | 3,82 | | 3,22 | 3,24 | 3,65 | 2,68 | 4,78 | 7,13 |
| 5x | 5,45 | 5,45 | 3,22 | | 0,69 | 1,03 | 1,52 | 2,16 | 4,51 |
| 6x | 5,47 | 5,47 | 3,24 | 0,69 | | 0,41 | 1,2 | 1,55 | 3,9 |
| 7x | 5,88 | 5,88 | 3,65 | 1,03 | 0,41 | | 1,61 | 1,13 | 3,48 |
| 8x | 4,93 | 4,93 | 2,68 | 1,52 | 1,2 | 1,61 | | 2,74 | 5,09 |
| 9x | 7,02 | 7,02 | 4,78 | 2,16 | 1,55 | 1,13 | 2,74 | | 3,33 |
| 11x | 9,23 | 9,23 | 7,13 | 4,51 | 3,9 | 3,48 | 5,09 | 3,33 | |
| 12x | 5,32 | 5,32 | 3,09 | 0,55 | 0,15 | 0,56 | 1,05 | 1,69 | 4,03 |
| 13x | 7,24 | 7,24 | 5,01 | 2,38 | 1,77 | 1,36 | 2,97 | 0,7 | 3,75 |
| 14x | 5,36 | 5,36 | 3,45 | 1,13 | 1,59 | 1,63 | 1,83 | 2,58 | 4,28 |
| 15x | 9,29 | 9,29 | 7,15 | 4,52 | 3,91 | 3,5 | 5,11 | 3,34 | 1,03 |
| 16x | 7,24 | 7,24 | 5,01 | 2,38 | 1,77 | 1,36 | 2,97 | 0,7 | 3,75 |
| 18x | 10,27 | 10,27 | 8,12 | 5,5 | 4,89 | 4,48 | 6,08 | 4,32 | 1,62 |
| 19x | 9,4 | 9,4 | 7,26 | 4,64 | 4,02 | 3,61 | 5,22 | 3,45 | 0,65 |
| 20x | 7,26 | 7,26 | 5,02 | 2,4 | 1,79 | 1,37 | 2,98 | 1,22 | 3,13 |
| 21x | 7,23 | 7,23 | 4,99 | 2,37 | 1,76 | 1,34 | 2,95 | 1,47 | 3,89 |
| 22x | 7,54 | 7,54 | 5,31 | 2,68 | 2,07 | 1,66 | 3,27 | 1,5 | 2,44 |
| 10x | 4,87 | 4,87 | 5,77 | 4,67 | 4,7 | 4,66 | 4,89 | 5,34 | 5,66 |
| 23x | 6,75 | 6,75 | 5,6 | 3,58 | 3,6 | 3,57 | 4,45 | 3,8 | 4,12 |
| 24x | 6,57 | 6,57 | 5,42 | 3,52 | 3,55 | 3,52 | 4,39 | 4,17 | 4,49 |
| 25x | 5,54 | 5,54 | 4,39 | 2,52 | 2,55 | 2,52 | 3,39 | 3,42 | 3,83 |
| 26x | 7,23 | 7,23 | 5,72 | 3,15 | 3,18 | 3,15 | 4,02 | 3,38 | 3,63 |
| 27x | 4,96 | 4,96 | 3,81 | 2,88 | 3,17 | 3,14 | 2,93 | 4,05 | 4,45 |
| 28x | 6,75 | 6,75 | 5,6 | 3,58 | 3,6 | 3,57 | 4,45 | 3,8 | 4,12 |
| 29x | 4,58 | 4,58 | 6,07 | 5,34 | 5,37 | 5,34 | 5,53 | 6,02 | 6,34 |
| 30x | 3,85 | 3,85 | 5,33 | 4,9 | 5,32 | 5,28 | 4,95 | 6,19 | 6,59 |
| 31x | 5,69 | 5,69 | 6,09 | 4,98 | 5,01 | 4,98 | 5,2 | 5,66 | 5,98 |
| 32x | 5,59 | 5,59 | 4,44 | 3,18 | 3,21 | 3,17 | 3,56 | 4,08 | 4,48 |
| 33x | 6,43 | 6,43 | 5,54 | 4,2 | 4,23 | 4,2 | 4,66 | 4,85 | 5,17 |
| 34x | 5,79 | 5,79 | 4,65 | 2,11 | 2,14 | 2,11 | 2,98 | 3,01 | 3,66 |



### Development Stages

From raw coordinates to a validated distance & duration matrix: data cleaning, route calculation, error handling, and client-ready reporting.

### Main Benefit

Delivered a reliable travel time and distance matrix that improves route planning efficiency and ensures accurate decision-making.

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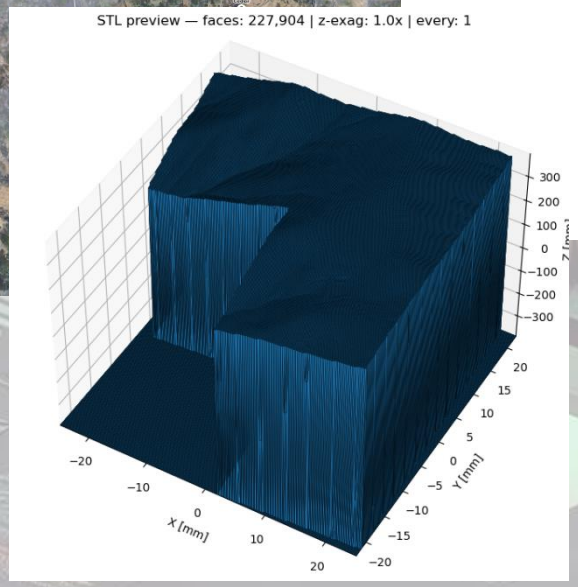
# Main Projects

Geospatial Processing and 3D Visualization for Land Development




## Development Stages

- Processed LiDAR/DEM data for terrain analysis.
- Mapped roads, water, and points of interest.
- Created schematic and satellite maps.Generated
- 3D terrain model (STL).

## Main Benefit

Clear maps and 3D model to guide planning and development.

# Avner Gomes

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## Main Clients

J.W. HULME CO.
ESTD 1905

orbify

aDryada

IDR-Paraná
Instituto de Desenvolvimento Rural do Paraná - IAPAR-EMATER

SEQUOIA HIGHLAND CAMP

Doggy Dates
Play Dates For The Yuppie Puppy

KOBE
INTERIOR FABRICS

# Avner Gomes

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## Contact


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Avner Gomes - UpWork