



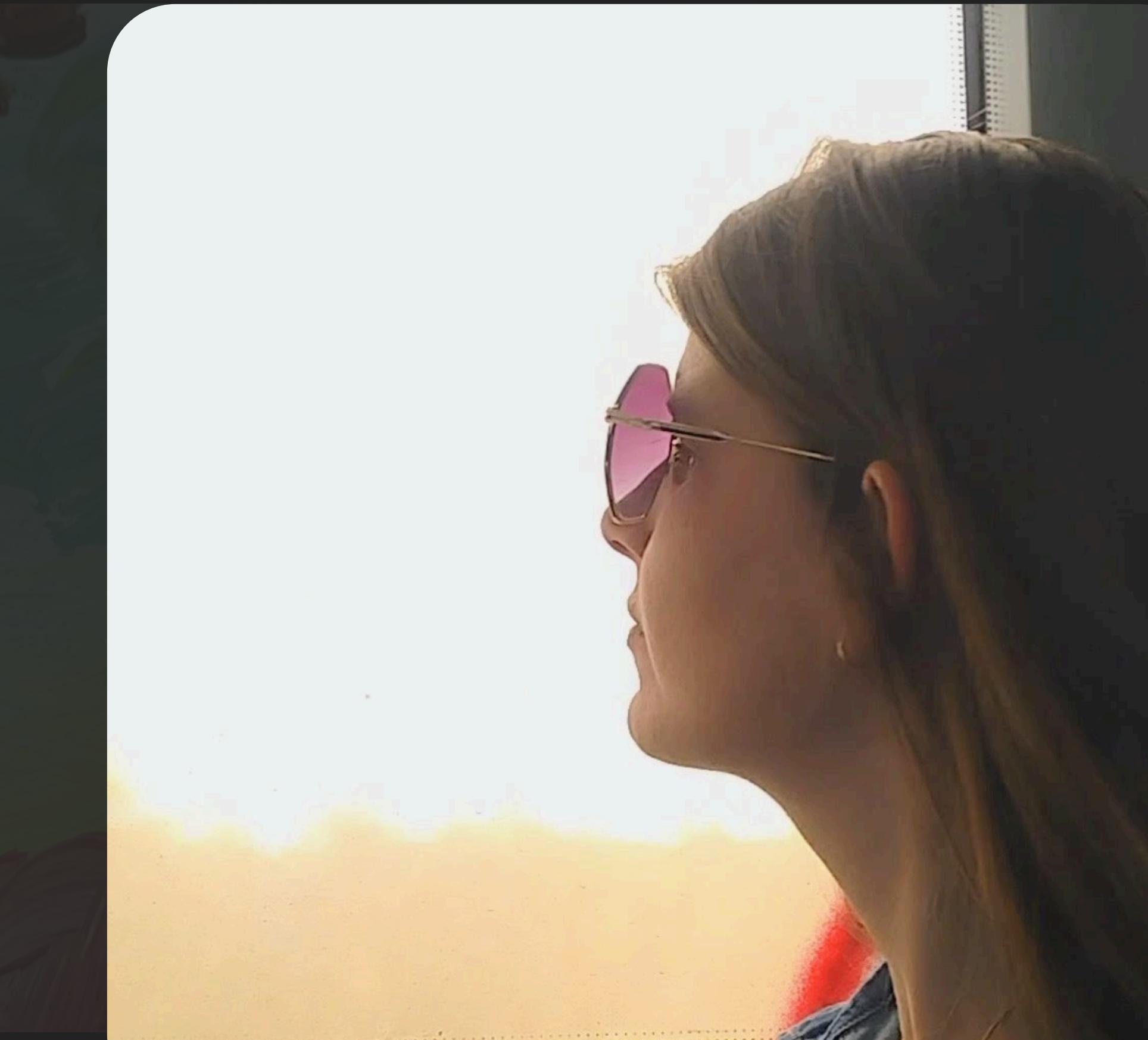
PRESENTATION: JUNE 2025

01

# SARAH JANSSEN

Internship @Beja

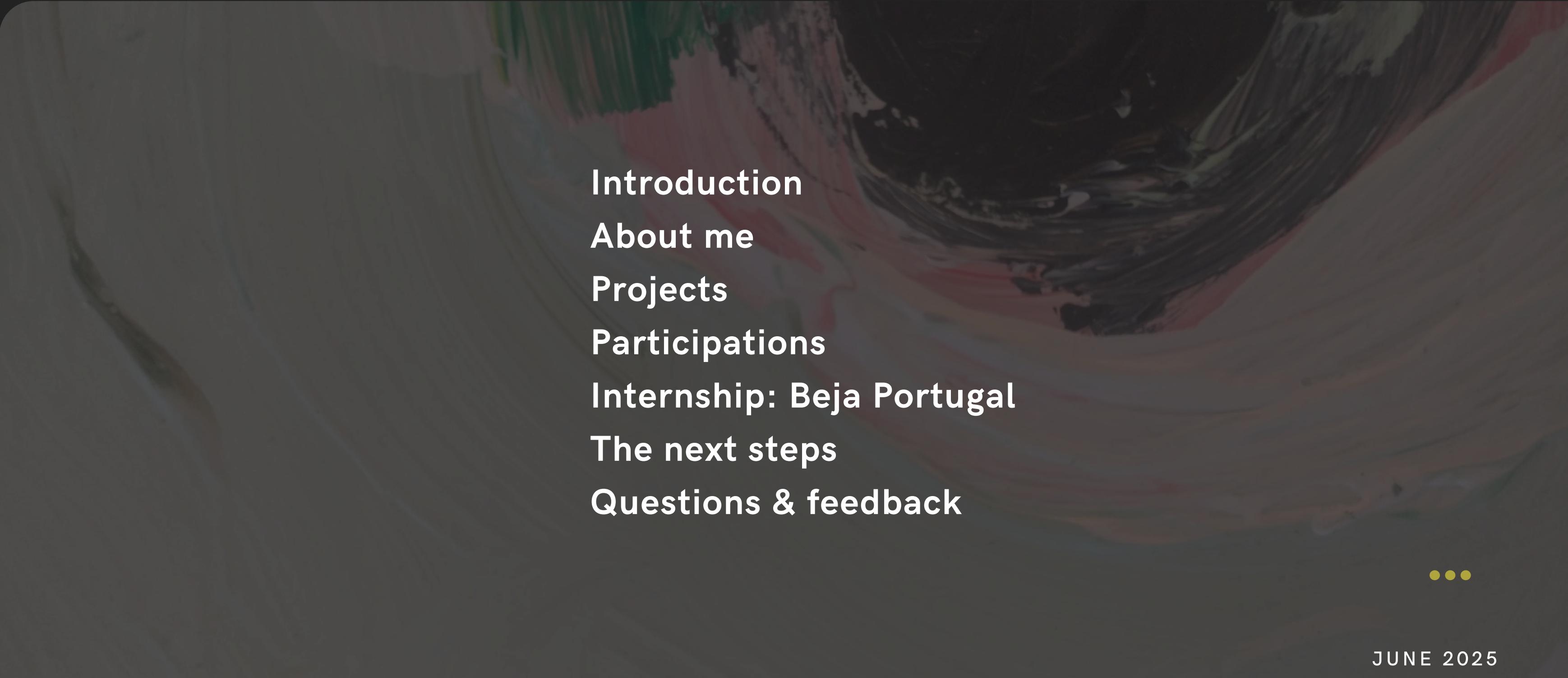
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# Table of Contents

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- A large, abstract, circular image in the background, composed of swirling colors like red, orange, yellow, green, and blue, resembling a celestial body or a stylized sun.
- Introduction
  - About me
  - Projects
  - Participations
  - Internship: Beja Portugal
  - The next steps
  - Questions & feedback

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# About me

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## Sarah Janssen

Who am I?

Perfectionist

Inquisitive

Studies:

Graphic design

Medical secretary

Why IT?

My partner sparked my dream



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# Skills

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## Hardskills

C#

JavaScript

Python

React

HTML, CSS

Bootstrap

## Tools:



GitHub



WordPress



Docker



Jira

## Softskills

Creativity

Teamwork

Communication

Problem-solving

Time management

Adaptability

Attention to detail



PROJECTS

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# My Projects

View more at  
[www.sarah-janssen.be](http://www.sarah-janssen.be)



The screenshot displays a travel application's user interface. On the left is a mobile phone showing the 'Welcome to the Travel App' screen with a search bar, a 'Login' button, and sections for 'Featured Destinations' (Oceania, South America) and 'Latest Blogs' (Beaches of Bali, Backpacking South America). On the right is a web browser window showing a travel blog post with the title 'adduco sustineo vestigium.' and some Latin text below it.

## Travelblog

### Key Features

- User Registration and Authentication
- Blog Management
- Commenting System by comments
- Mark favorites

### Technologies

- Web application in Next.Js
- Mobile application in React Native
- Supabase for data service



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# More than just programming!



## Meetups

AI, ethical hacking, Web 3.0, ...  
Learn from experts  
Connecting and networking

## Hackathon

Hack The Future  
Power apps  
Offer travel to space  
Me and my teammate: 4th place

## Robocup and AI Show

Meet Lieven Scheire  
Learn about robotica  
AI show



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# How can I learn as much as possible?

By expanding to different platforms.

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ERASMUS TRAINEESHIP IN BEJA

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# Erasmus in Portugal

Hier komt een filmpje van mijn  
Erasmus avontuur

I arrived as a stranger and came back with a (second) home.

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## ERASMUS TRAINEESHIP IN BEJA

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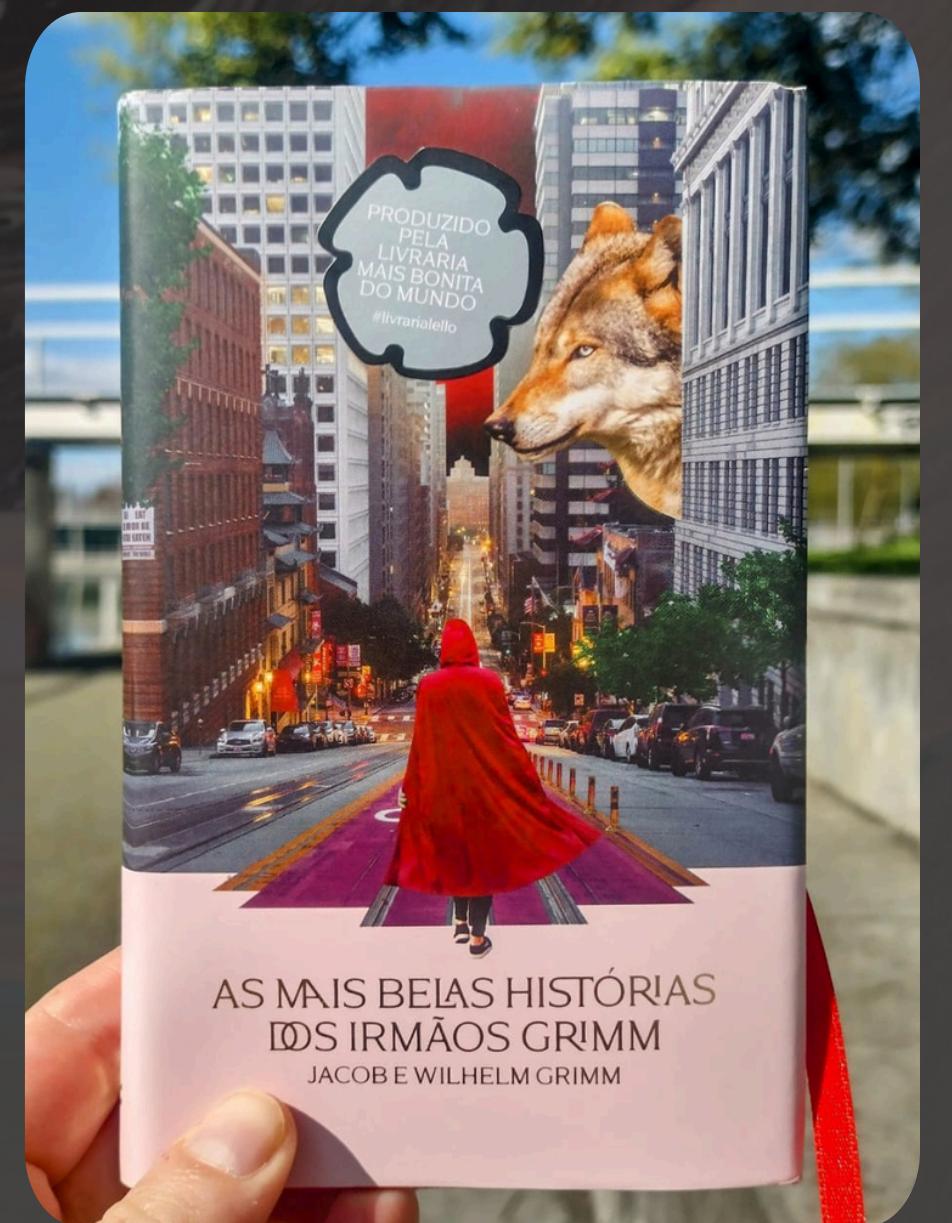
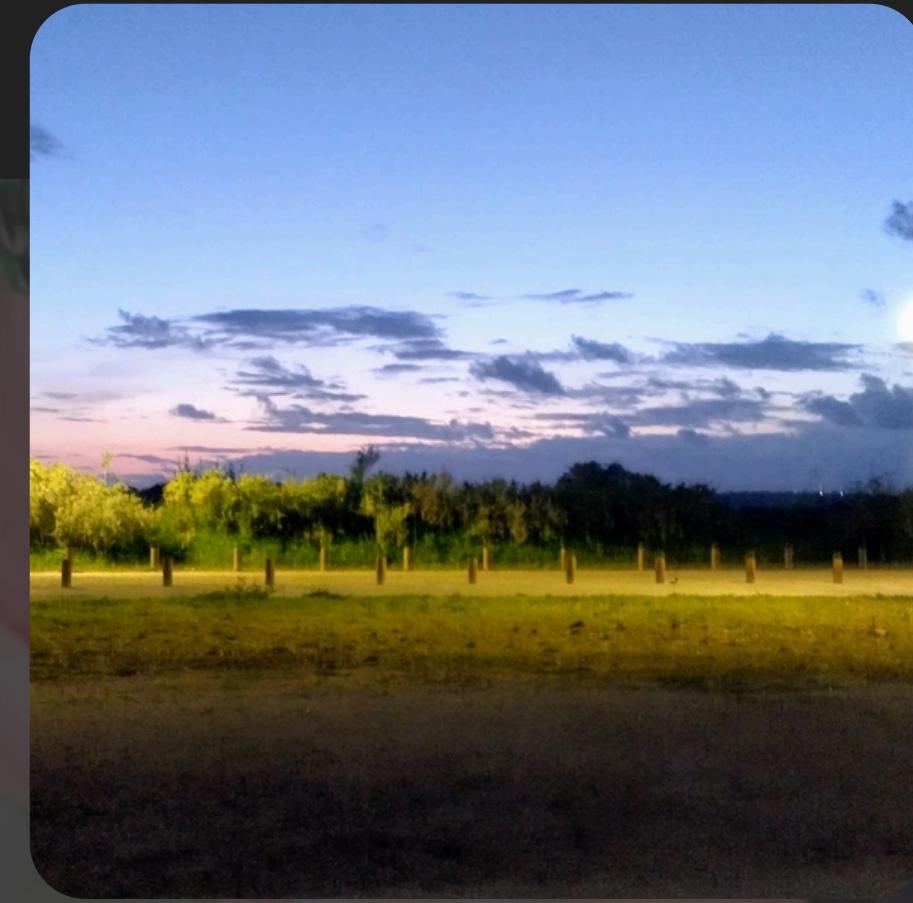
**It was a great experience!**

### Erasmus in Beja

- Discover a new culture
- Learn about local products
- Meet new people
- Learn and improve languages

### Growth

- As a developer
- As a person





# My Project

The screenshot shows a web application interface titled "Water Reports Application". At the top, there is a navigation bar with links: Overview, History, Current values, Configuration (with a dropdown arrow), and Read Me. To the right of the navigation bar is a search bar with a placeholder "Search" and a green "Search" button. Below the navigation bar, the title "Water Reports Application" is displayed in large, bold, yellow letters. Underneath the title, the word "Dashboard:" is centered in green text. The main content area features six cards arranged in a 2x3 grid:

- Sensor Data**: View water sensor measurements. Button: [View sensordata Details](#)
- Sensor data Graphs**: View sensor data historical. Button: [View historical Data](#)
- Sensor data table**: View sensor data table. Button: [View table](#)
- Documentation**: Go to the documentation section. Button: [Read documentation](#)
- Dashboard Management**: Go to the grafana dashboard. Button: [Manage Grafana](#)
- User Configuration**: Go to user configuration . Button: [Go to Django Admin](#)

At the bottom of the page, a copyright notice reads: © 2025 Sarah Janssen. All rights reserved.

## Water Reports Application

A web application for managing water measurement data.

Collects and stores water data in a structured database.

Displays measurement trends using interactive dashboards.



# Context & Purpose

My role: make a reusable app by turning sensor data into insights

- Sensor data is collected by colleagues via an IoT platform
- Data is stored centrally in a shared PostgreSQL database
- My app reads and visualizes that data in a clear dashboard
- Users can search and filter measurements over time
- The app supports analysis through graphs and gauges

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# Application tools

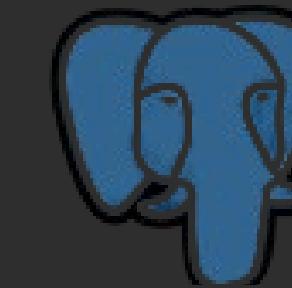
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Programming language used for the back-end logic of the application.

**django**

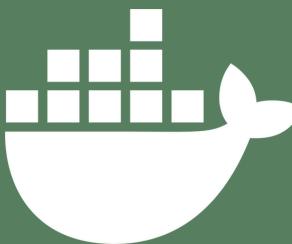
Web framework based on Python.



Open-source relational database system.



Tool for data visualization and monitoring.



Container platform to run the application consistently across environments.

**cypress**

Front-end testing tool for automated browser tests.



# Python

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Core programming language used for backend logic

- Chosen for its simplicity, readability, and strong ecosystem
- Used in combination with Bootstrap to build a responsive and visually clean user interface
- Easy to learn, large community
- - Slower than compiled languages for intensive tasks

The image displays three screenshots of a Django-based web application for managing water sensor data. The top screenshot shows the 'Dashboard sensor data' page, featuring three circular gauges for Temperature (15.3 °C), pH (7.15), and dissolved oxygen (6.60 mg/L). The middle screenshot shows the 'Historical Sensor Data' page, displaying line graphs for historical temperature, pH, and dissolved oxygen data over time. The bottom screenshot shows the 'Project Read Me' page, which includes sections for Water Management System, Features, Project Structure, Prerequisites, and Installation.

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# Django

Full-stack web framework for rapid backend development

- Offers built-in tools (routing, ORM, admin) to accelerate development
- Powers routing, models, and admin features in your app
- Secure and structured
  - Less flexible than lightweight frameworks

The image displays a grid of 12 screenshots of the Django admin interface, arranged in a 3x4 grid. Each screenshot shows a different part of the admin site, such as user management, site administration, and specific data entry forms for water reservoirs.

- Row 1:** Shows the main dashboard, a user list page, a site administration page with sections for CABINET and WATERRESERVOIR, and a water data entry form.
- Row 2:** Shows a users list page, a timestamp input field, a temperature input field, and a dissolved oxygen input field.
- Row 3:** Shows a users list page, a conductivity input field, a redox oxygen input field, and a dissolved oxygen input field.



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# PostgreSQL

The screenshot shows the pgAdmin interface. At the top, there's a navigation bar with tabs for 'readme.md', 'docker-compose.yaml', 'console', and 'waterdatatest2'. Below the navigation bar is a toolbar with various icons for database management. The main area displays a table titled 'waterdatatest2' with three rows of data. The columns are labeled 'timestamp', 'temperature', 'ph', 'dissolved\_oxygen', 'conductivity', and 'redox\_oxygen'. The data is as follows:

	timestamp	temperature	ph	dissolved_oxygen	conductivity	redox_oxygen
1	1712060000	15.123	7.100	6.20	450.00	12.00
2	1712060600	14.987	7.300	6.50	455.20	11.90
3	1712061200	15.500	7.250	6.40	452.10	12.10

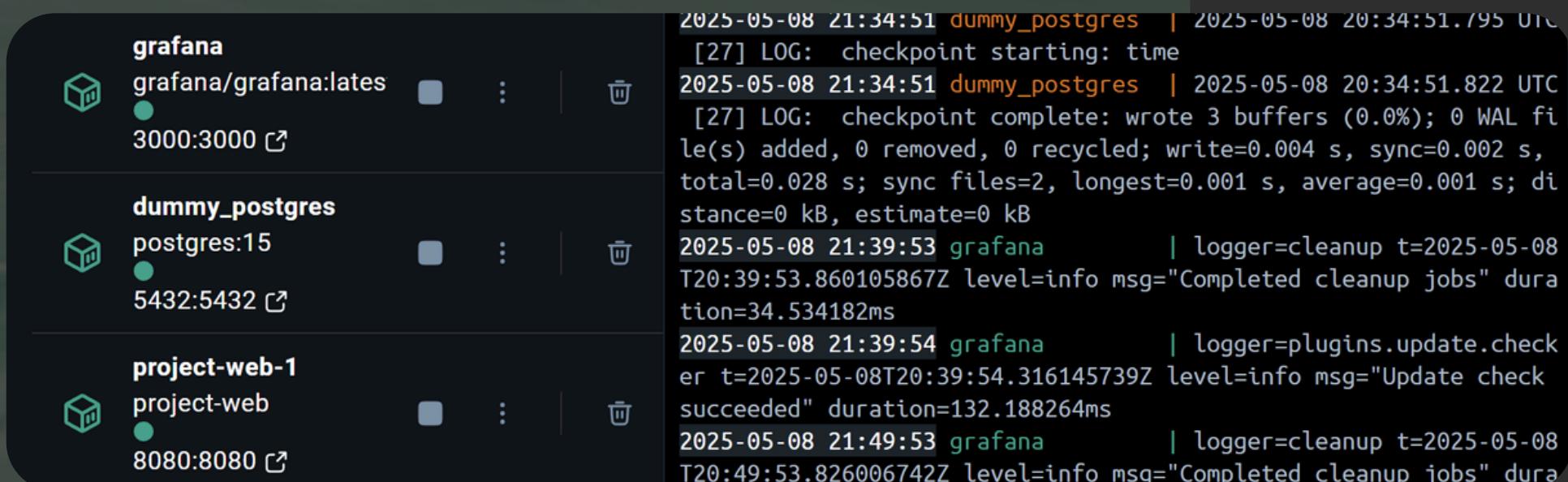
To the right of the table, there's a tree view of the database schema under 'dummy\_postgres@localhost'. The 'public' schema contains several tables, including 'auth\_group', 'auth\_group\_permissions', 'auth\_permission', 'auth\_user', 'auth\_user\_groups', 'auth\_user\_user\_permissions', 'cabinet\_drawer', 'django\_admin\_log', 'django\_content\_type', 'django\_migrations', 'django\_session', and 'waterdatatest2'. The 'waterdatatest2' table is currently selected.

**Reliable and advanced database for structured data**

- Chosen for its strong query support and open-source nature
- Stores water measurements and connects to Grafana
- Powerful and scalable
  - More complex than SQLite

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# Docker



Container platform to deploy and run  
your app anywhere

- Chosen to ensure consistent environments across machines
- Packages Django, PostgreSQL, and other services
- Easy deployment and portability
  - Initial learning curve



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# Grafana

Visualization tool to monitor and explore water data

- Chosen for real-time dashboards without custom coding
- Displays measurement trends using time series and gauges
- Beautiful visuals, easy setup
- – Read-only, not a reporting tool





Hier komt een  
filmpje met  
testen die runnen  
op replay



# Cypress

Frontend test automation tool

- Chosen to automatically test UI components like the search bar
- Verifies that user actions and interface behave correctly
- Fast feedback in browser
  - - Always in users perspective, application needs to run before test

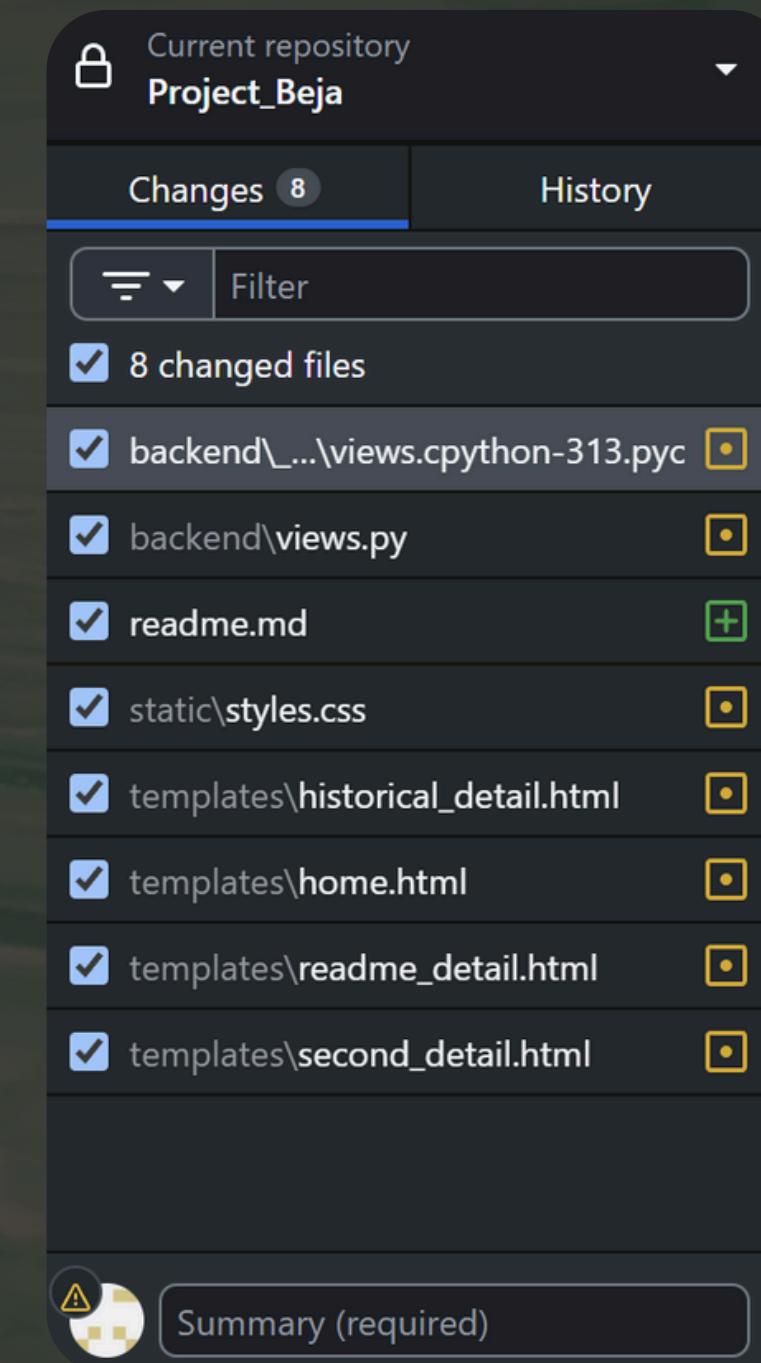


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# Github desktop

## Visual Git tool for version control

- Chosen to simplify Git usage without using command-line tools
- Used to track changes, manage branches, and push code to GitHub during development
- Beginner-friendly, clear commit history
- - Less flexible than command-line Git for advanced tasks



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# Demo opname

Project Beja

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WHAT'S NEXT?

JUNE 2025

# The Next Steps

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June

Aclimatize  
Stabilize

July/August

Search for my  
dreamjob  
Finalise projects

September

Working on a  
great start

October

Back to Beja to  
network  
Build the future...

For the coming months

...



JUNE 2025

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# Thanks for your attention.

It is now the time for questions &  
feedback.

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