

FIRELAB TRANSITION PHASE

Projeto em Informática DETI LEI 2020/21

Group 2 António Fernandes, 92880 David Morais, 93147 Francisca Barros, 93102 Luís Silva, 88888 Mariana Ladeiro, 92964

Advisors: Hélder Zagalo José Moreira Patrícia Fernandes

CONTEXT

The development of this proposal fits into the MoST Project, which is financed by Fundação para a Ciência e Tecnologia (FCT).

The main objective is to obtain data in order to develop studies about fire propagation and gas emissions into the atmosphere. Thus far, 2 field experiences were made to capture images of controlled fires using drones, which will have an integral part on our project.

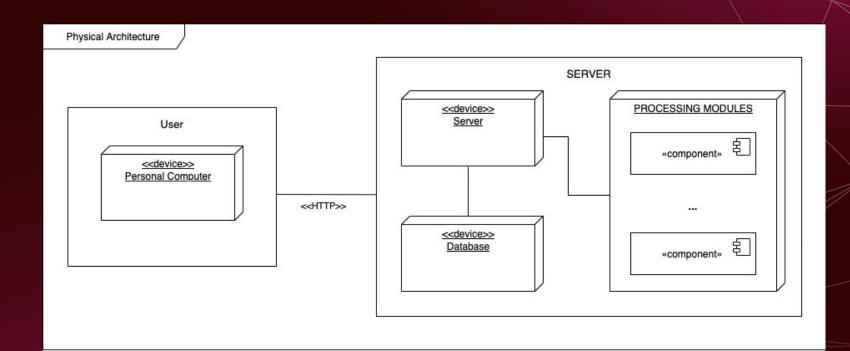
GOALS

- Tool to classify the vegetation in orthophoto maps
- Segment the burnt area either in images or video frames
- Export data to modelling tools of fire propagation and smoke dispersion
- Transform raw data into georeferenced data
- Tool to view fire progression
- Aggregate the above in a easy to use application

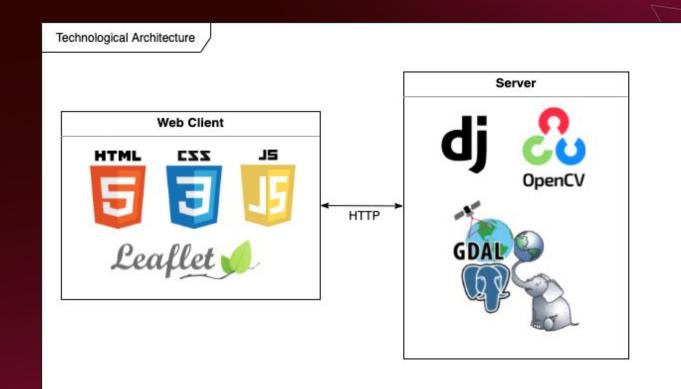
FUNCTIONALITIES

- Classify Vegetation
- Extract the fire front's shape
- Georeference points
- Data visualization
- Export data in specific formats

SYSTEM ARCHITECTURE



SYSTEM ARCHITECTURE



USER TESTS

- Stakeholder and Advisors
- Feedback Collected after tests
 - ↑ Usability
 - ↑ Reliability
 - ↓ System Complexity



THANK YOU FOR YOUR TIME! QUESTIONS?