

## Volcán-De-Fuego App Description:

The app is a crowd-sourced data collection system tracking the growth of Volcán de Fuego in Guatemala. There will be a standing post for users to place their phones in on a nearby mountain. This will allow users to snap a photo at a set angle to upload to the web-app. The uploaded photos can then be compiled into a timelapse for the public to see and watch the volcano's growth over time. The photos will also be used by Dr. Waite's team to analyze the growth of the volcano over time. The website will also provide some information about the volcano and the hazards it poses to the public.

A member of the public will scan a QR-code to open the web-app and read a paragraph or two about the volcano and some safety warnings. Afterwards, they will place their phone in a stand near Volcan de Fuego, and either open the web-app, which will take a photo, or take a photo themselves and upload it to our central database. From there, a time-lapse will be returned to the user showing changes in the volcano over a period of time. Later on, there may also be some precompiled timelapses that are housed on the website for members of the public to view.

Dr. Waite and his team can access all photos taken from a dedicated back end that will allow them to analyze changes between photos. This will allow them to determine the growth of the volcano over time, assuming photos are being added to the database. This will ideally be through a dedicated admin page to take them to a dedicated backend GUI.

Users:

- Locals/Tourists at the volcano.
- Scientists studying the volcano
- People who want to see changes in the volcano remotely (non-tourists)(but not visit or study)

User Goals:

Locals & Tourists	Take photos of the volcano. View timelapse of volcano over time period. Learn about volcano hazards and how the volcano is monitored. Learn about the history of Volcan del Fuego. Switch between English and Spanish. Overview of current hazards on the volcano.
Scientists	Collect data on the volcano from photos taken by the users. Filter out unwanted photos (automatically or manually) View changes in volcano morphology over time. Potential blueprint for studying other volcanoes. Overview of current hazards on the volcano.
Digital Visitors	View timelapse of volcano. Source of images and data for independent research. Learn about volcano hazards and how the volcano is monitored. Whatever other myriad uses exist for a timelapse of a volcano. Learn about the history of Volcan del Fuego. Switch between English and Spanish. Overview of current hazards on the volcano.