Fort Capital

Truck Detection
Vision

Version 1.0

Revision History

Date	Version	Description	Author
9/25/2020	1.0	Initial Vision documentation	Ben Ruelas, Hy Dang

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Vision (Small Project)

1.   Introduction

The purpose of this document is to collect, analyze, and define the business requirements, i.e. high-level needs, desired ultimate business outcomes and features of the Truck Detection. It focuses on the capabilities needed by the stakeholders and the target users, and why these needs exist in the first place. The details of how the Truck Detection fulfills these needs are detailed in the use-case and supplementary specifications.

1.1   Background

Fort Capital wants to be able to reclassify property data by analyzing satellite images. Through optimized data, Fort Capital will be able to invest more strategically into interesting geographic areas.

2.   Positioning

2.1   Business Opportunity/Problem Statement

The problem of	unavailable property classification
affects	Fort Capital acquisition
the impact of which is	a lagging knowledge of market assets
a successful solution would be	reclassified property data, newly found potential assets to acquire

2.2   Product Vision/Position Statement

For	investment strategists
Who	need the best data that might not be available
The Truck Detection	is a software
That	will identify and reclassify market assets
Unlike	other data sources which may be outdated or incorrect
Our product	will classify property based on Fort Capital's own classification definitions

3.   Stakeholder Profiles and User Descriptions

Name	Description	Major value or benefit from this product	Major features of interest	Constraints that must be accommodated	Direct User or not?
Greg Adams	Director of Technology	Augmented understanding of geographic areas of interest	Ability to better see the market landscape to help with investment strategies		Yes
Jason Baxter	COO	Augmented understanding of geographic areas of interest	Ability to better see the market landscape to help with investment strategies		Yes
Chris Powers	CEO	Augmented understanding of geographic areas of interest	Ability to better see the market landscape to help with investment strategies		Yes
Hunter Harrison	VP of Investments	Augmented understanding of geographic areas of interest	Ability to better see the market landscape to help with investment strategies		Yes

4.   Product Overview

4.1   Product Perspective

This product will be completely self-sustained until a time Fort Capital is able to merge with other developing technologies.

4.2   Deployment Considerations

To ensure an effective deployment of the solution into its operating environment:
- The programming language is Python
- The Deep Learning Framework is PyTorch
- Coding Platform is Google Colab
- Users need to access the data (geographical satellites images) to evaluate and use the system
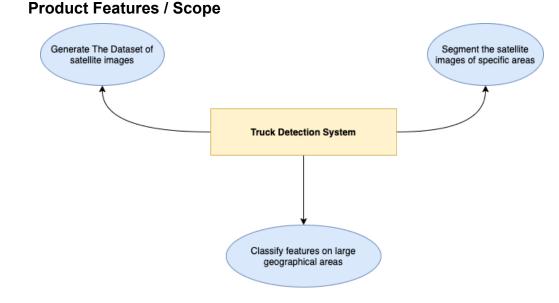
4.3 Assumptions and Dependencies

Assumptions:

- The Deep Learning Framework is consistent
- The project can be written in Python script
- The project should be delivered to stakeholders on a monthly basis with results.

Dependencies:

- The satellite images are updated periodically.
- The process of gathering satellite images in different regions, modelling, and returning a result to ETL system for analysis will be automatic

5.   Product Features / Scope

Features	Description
Gathering satellite images in different regions	The satellite images are updated periodically
Successfully segmenting the images	The output should be the images which are labelled
Classify features of large geographic areas to augment information of the area	Solving the limited visibility into a geographic region using tabular datasets

6.   Other Product Requirements

Requirements:
- Deep Learning Framework is PyTorch
- Programming Language is Python
- The areas, which are considered, are Dallas, Denton, Collin, Tarrant County.
- The zoom scale of satellite images is larger than or equal to 18.