A Mobile Application for a Leaf-Based Tree Identification System

Retrospective Document
Sprint-3
08.05.2016

Work & Test Progress

Implementation Milestones:
1. IM₁ - Training of SVM and Merging Results of Caffe and SVM - 100%
2. IM₂ - Construction of Enhanced Caffe Tree Identification Model - 100%
3. IM₃ - Visualization of Caffe's Neural Network - 50%
4. IM₄ - Android design will be improved (Design) - 100%
5. IM₅ - Search for New Features Extracted from Leaf Image - 100%
6. IM₆ - Deprecated camera hardware will be converted to camera2 hardware with new features in the Android application - 25%

Testing Milestones:
1. TM₁ - Training of SVM and Merging Results of Caffe and SVM - 100%
2. TM₂ - Construction of Enhanced Caffe Tree Identification Model - 100%
3. TM₄ - Android design will be improved (String consistency with server) - 100%

Team Progress

- Eren Şener - 100%
- İlke Çoğlu - 100%
- Emre Akın - 100%
- Çağrı Erciyes - 100%
- Burak Balcı - 100%

Note to assistant and to supervisor:
Make sure that the actual percentages match with the declared percentages and indicate this in your report if there is any discrepancy.

Left-overs (Backlog)

Following milestones could not be 100% completed.
1. IM₃ - Visualization of Caffe's Neural Network
   - Milestone is on hold. Waiting for further instructions from the team leader.
2. IM₆ - Deprecated camera hardware will be converted to camera2 hardware with new features in the Android application.
   - This milestone is rejected by our team and supervisor since implementing camera hardware has more disadvantages than advantages for our purposes.
Next Sprint

Milestone IM#1: Remote Server Construction
- Find appropriate IaaS from a Cloud Service Provider
- Install necessary software for the server
- Install the server itself

Milestone TM#1: Remote Server Construction
- Server Testing

Milestone IM#2: Final Caffe Tree Identification Model Construction
- Make all images pointing vertical direction
- New leaf images will be gathered
- Poor leaf images will be removed from dataset
- Tree_identification_v6.caffemodel will be released

Milestone TM#2: Final Caffe Tree Identification Model Construction
- Accuracy Testing

Milestone IM#3: Improved Segmentation Code Implementation
- Make the segmentation algorithm to work faultlessly.
- Reduction of degeneracy on edges of image.

Milestone TM#3: Suitability of General Algorithm For Each Leaf image
- Deterioration on Image Testing
- Bad Conditioned Testing

Milestone IM#4: Android application will be finalized with all of its features
- Android design will be finalized
- Latest Android codes will be reviewed by object-oriented design principles
- Whole Android strings in the application will be converted to English

Milestone TM#4: Android application will be finalized with all of its features
- Server results will be checked on the application
- Different languages will be tested whether they are correctly working or not

Team Comments

Another perfect sprint for our team.

This section should be filled in by the Team.
Assistant Evaluation

*Assistant’s (Team Leader’s) comments regarding to this completed sprint.*

Write down your comments if the team has not made satisfactory progress in this sprint.

Also indicate whether the team’s report on their progress (i.e. the reported completion percentages in the retrospective document) are accurate.

*This section should be filled in by Assistant (Team Leader)*
Supervisor Evaluation

Supervisor's (Team Leader's) comments regarding to this completed sprint.

This section should be filled in by Supervisor.