BitSearch, the blog
before the thesis

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Common problems with students thesis

- Social isolation
- Little visibility of results
- Difficulties in receiving external opinions
- Large periods between meetings with advisors
- Communication problems
Qualities of writing on a web blog

- Combines solitary reflection and social interaction
- Promotes critical and analytical thinking
- Increases access and exposure of quality information
- Tool for discussion
Pedagogical uses for the teacher

- Review of course material
- Analysis on class activity
- Encourage reflections by commenting student’s blogs
- Student portfolio
- Motivation
Thesis+blog=BitSearch

- Electrical Engineering
- Written in English
- (Weekly) contributions
- In parallel to regular workflow

http://bitsearch.blogspot.com
Students enrollment

• English skills required

• Previous posts available as introduction

• Agreement on thesis topic

• Publication schedule

• User account in blog platform
Writing guidelines

• Plain language
• Avoid external format
• Internal & external links
• Draw figures
• Tag management
• ...and finally, the title
The life cycle of a post

Topic decision → Post writing → Promotion

Review
Types of thesis posts

1. Definition of the thesis topic
Types of thesis posts

2. State of the art

Algorithms for the identification of football players in close-up views

Today, I’m going to explain you some algorithms for the identification of close-up views of football players.

The identification of players in any sport is so complicated because they are all the time moving quickly. That’s why only close-up views are useful for recognize the players. These images are characterized by the visual features like t-shirt colors, logo, and furthermore some methods of text capture as the name or the number of the dorsal in the t-shirt.

Close-up image samples.

For the classification and automatic annotation of players there is the algorithm done by Marco Bertini, Alberto Del Bimbo and Walter Nuzzi that has a 90% of efficiency. They use the close-up views with
Types of thesis posts

3. Proposed solutions

Server architecture to deliver streaming videos to iPhone

Today I’m going to show you the server architecture to adapt and deliver pre-recorded videos to the iPhone. After configuring this, the iPhone app -which I am also developing- will connect to the server to play the videos and show their info.

We can divide the server into three parts: video adapting, metadata adapting and distribution of all -video and metadata-.

Video adapting

We use HTTP Live Streaming Protocol to transmit media on iPhone, so this protocol needs a special adaption of the video files. Firstly we have to encode the video on iPhone’s video formats supported and segment them. These files are saved on a repository, ready to be sent when iPhone asks it. In this post there are an implementation of this part.
Types of thesis posts

4. Development

CREA-IPTV Twitter screen shots
Today, my post is not very long, nor full of technique concepts or dense information. How I promised you last week, I have made some screen shots of the current state of my application that represent the work of recent days. An image is worth than thousand words.

In the following picture is shown the Down Menu to which I added the Twitter icon.
Types of thesis posts

5. Results and conclusions

Results and Conclusions
This week I present the results and conclusions obtained during the last weeks of my thesis.

The results vary depending on the video domain analyzed (football, news and parliamentary sessions.) The first step has been made automatic annotation of the validation dataset for each descriptor and each configuration parameter of the K-NN classifier in a range of values.

For the soccer video, the best results were obtained with the Color Structure descriptor for a K with a value of 4, the detection rate for this combination is 65%. With this combination, the test dataset has been automatically annotated in order to determine the source of the errors.

The analysis of the detection rate of each camera, shows the source of the annotation errors (figure below). The global view cameras has a good detection rate. However, the different cameras with close-up shots has less detection rates.

![Chart showing detection rates for different cameras]
Types of thesis posts

6. Thesis completion

Impressions after completing a thesis

Today I publish a text that is not mine but from Silvia Cortes Yuste, the bachelor student who recently graduated after presenting her thesis and obtaining for it an A with honors. It has been been a pleasure working with her and I hope she can further develop her technical skills and personal aptitudes in further stages of her career. Good luck Silvia!

"You have already had the opportunity to read about GOS in this blog. I'm its first developer, Silvia Cortés, and I'm very proud of it, I feel like its “mother”. I presented my bachelor thesis on the 16th June in EUETIT-UPC, Terrassa, called "Interfaz Gráfica de Usuario para la Búsqueda de Imágenes basada en imágenes" (Graphical User Interface for query-by-image image retrieval) and now I'm officially a technical engineer in Telecommunications, finally!

The completion of the thesis was a long and hard process. My availability was very limited and I spent the weekends to work. It means little time to investigate, little time to develop and little time to write the report. And little time to myself, too. I started
Statistics

- Online since February 2009
- Irregular frequency
- High variance by contributor

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Statistics

Site Usage

7,311 Visits
12,700 Pageviews
1.74 Pages/Visit

73.16% Bounce Rate
00:02:07 Avg. Time on Site
53.13% % New Visits

Source: Google Analytics
Statistics

• Traffic Sources Overview

- Referring Sites: 3,206.00 (43.85%)
- Search Engines: 2,683.00 (36.70%)
- Direct Traffic: 1,422.00 (19.45%)
Statistics

• Visits by geographical location
Statistics

• Most visited posts

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Results

• Improvements in English technical writing

• Social awareness for motivation

• Multimedia material

• Better communication

• Clearer work plan
Conclusions

• Successful introduction

• Faster engagement in thesis

• Filter for motivated students

• Increased quality & quantity

• Applicable to research
Thank you

- Questions
- Suggestions
- Comments
- ...review coming soon on the blog!

http://bitsearch.blogspot.com