**CS408 Individual Project**

**Craig Thomson**

**11/2/15**

**Project Progress Report Submission**

**Conn03 – Who will win the tennis/football/cricket?**

Conn03 – Who will win the tennis/football/cricket?

**Revised initial goal**

The initial goal of the project is to predict major game events from sports games, from betting market data, and relay it’s predicted information to the user, for example it try and relate large changes in betting odds to events in game. This aim of it is to provide a free live match feed giving out key information to observers, whereas alternative programs providing the service are typically not free. The other aim is to discover how much information about an in-play sports game can actually be extracted from the betting market data. The program will run whilst a game is playing (the user selects what they want to look at) and it will attempt to predict events in the game in near real time (5-30 second delay is the plan). The program will primarily focus on football but may be able to support other sports.

**Revised achievable goal**

Within the time frame it’s definitely possible for the program to work well with football. The aim is to add support for another sport, its analysis won’t be as well developed as that, that will run for football but it should at least be able to tell users who wins each set.

**Alterations from previous expectations**

A big change to the project is that it will now support 1 or 2 sports very well (well in the sense that more events can be extracted) rather than poorly supporting multiple sports. Some sports at first glance, and after referencing related work look impossible to model well (horseracing), others look unfeasible (golf) and others look promising but I haven’t looked into them yet (darts, tennis and snooker). American Football was initially a sport that I wanted to model but that’s impossible now since the season has already ended and it would be challenging to test, to say the least.

**Progress achieved**

So far the project is at a point where data for football is being collected. Currently there’s a class in the project that polls the BetFair API for data for a selected game and outputs timestamps with its predicted probability (from the hypothesis that probability is the number between the highest available back price and the lowest available lay price at a point in time). Data is currently being collected, after approx. 10 games of data has been collected I will graph it and compare the changes in a team’s probability (initially looking at the market regarding who wins the game) to a websites list of time stamped match events to look for relationships between the changes in probability and events occurring.

**Revised Project plan**

**New project planxxxxxx**

20/11/14: Have a program that can extract and save odds for a game

27/11/14: Have multiple datasets of Football and American football game odds

**10/12/14: Full Project Specification/Plan and Project Poster**

8/1/15: Have a program that can (mostly?) correctly recreate match events from a football games odds

5/2/15: Have a program that can (mostly? Correctly recreate match events from American football game odds

**13/2/15: Project Progress Report**

20/2/15: Extend the program to support a 3rd sport

10/3/15: (optional if time permits) Extend the program to support a 4th sport

**13/3/15: Project Report outline and Draft Chapters**

**7/4/15: Project Report Due**

**20/4/15: Bound Copies of Project Report due**

**OLD ONE HERE ^^**

**[Draft chapters follow]**

1. Near-final drafts of the first three chapters of the report and to include descriptions of current implementations (prototypes or features), verification and validation strategy and examples, plus an evaluation plan.

Please refer to the [Project Progress Report](http://classes.myplace.strath.ac.uk/pluginfile.php/779957/mod_resource/content/31/info/info.html#progrep)information for details of what is required for this submission. If multiple files are being submitted please use a zip - or somesuch - archive to limit the submission to a single file.

Details of the themes of the first three chapters can be found by reading the guidelines for the production of the final project report and its submission that are given in the [Project Submission and Report Guidelines](http://classes.myplace.strath.ac.uk/pluginfile.php/779957/mod_resource/content/31/info/proj_report_guide.html). Examples of past reports can be found [here](http://classes.myplace.strath.ac.uk/pluginfile.php/779957/mod_resource/content/31/info/past_reports.html).

For the avoidance of doubt, the first three chapters are:

1. ***Introduction****: This should briefly describe the problem which you set out to solve and should essentially summarise the rest of your report. The aim of an introduction is to convince the reader that they should read on, so it is very important that excessive detail is avoided at this stage. The introduction should include the list of objectives that you identified for the project, as well as a brief overview of the outcome. In its final part, the introduction will usually outline the structure of the rest of the report.*
2. ***Related Work****: You should survey and critically evaluate other work which you have read or otherwise considered in the general area of the project topic. The aim here is to place your project work in the context of the related work.*
3. ***Problem Description and Specification****: Describe in detail, with examples if appropriate, the problem which you are trying to solve. You should clearly and concisely specify the problem and should say how the specification was arrived at. You should also provide a general discussion of your approach to solving the project problem.*