An Adversarial Approach for building a Limit Texas Hold'em Poker Agent - Team #02

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1 Introduction

The introduction must contain a concise description of the problem. In particular it should describe

1. What does your agent do (i.e. what is the problem?)
2. Why did you choose this implementation (i.e. why should the reader be interested?)
3. What is the result that you achieved? (i.e. why should the reader believe you?)

It should be about a column long.

1.1 Length of Papers

Papers should be four pages long, excluding references. References can take up an unlimited number of pages. Note that only references can appear on the extra page. Sections such as conclusions or acknowledgments should not be placed on the extra references page. You may include an appendix with extra results, to be read at the staff's discretion.

1.2 Word Processing Software

As detailed below, IJCAI has prepared and made available a set of LaTeX macros and a Microsoft Word template for use in formatting your paper. If you are using some other word processing software (such as WordPerfect, etc.), please follow the format instructions given below and ensure that your final paper looks as much like this sample as possible.

Note that I did not edit the word document, and it still contains the original IJCAI formatting instructions. Please ignore those!

2 Style and Format

LaTeX and Word style files that implement these instructions can be retrieved electronically. (See Appendix A for instructions on how to obtain these files.)

2.1 Layout

Print manuscripts two columns to a page, in the manner in which these instructions are printed. The exact dimensions for pages are:

- left and right margins: .75″
- column width: 3.375″
- gap between columns: .25″
- top margin—first page: 1.375″
- top margin—other pages: .75″
- bottom margin: 1.25″
- column height—first page: 6.625″
- column height—other pages: 9″

All measurements assume an 8-1/2″ × 11″ page size. For A4-size paper, use the given top and left margins, column width, height, and gap, and modify the bottom and right margins as necessary.

2.2 Format of Electronic Manuscript

For the production of the electronic manuscript, you must use Adobe's *Portable Document Format* (PDF). A PDF file can be generated, for instance, on Unix systems using `ps2pdf` or on Windows systems using Adobe's Distiller. There is also a website with free software and conversion services: `http://www.ps2pdf.com/`. For reasons of uniformity, use of Adobe's *Times Roman* font is strongly suggested. In LaTeX2e, this is accomplished by putting

```
\usepackage{times}
```

in the preamble.[1]

Additionally, it is of utmost importance to specify the American **letter** format (corresponding to 8-1/2″ × 11″) when formatting the paper. When working with `dvips`, for instance, one should specify `-t letter`.

2.3 Title and Author Information

Center the title on the entire width of the page in a 14-point bold font. The title should be capitalized using Title Case. Below it, center author name(s) in a 12-point bold font. On the following line(s) place the affiliations, each affiliation on its own line using a 12-point regular font. Matching between authors and affiliations can be done using superindices. Additionally, a comma-separated email addresses list using a 12-point regular font is also allowed. Credit to a sponsoring agency can appear on the first page as a footnote.

[1] You may want also to use the package `latexsym`, which defines all symbols known from the old LaTeX version.

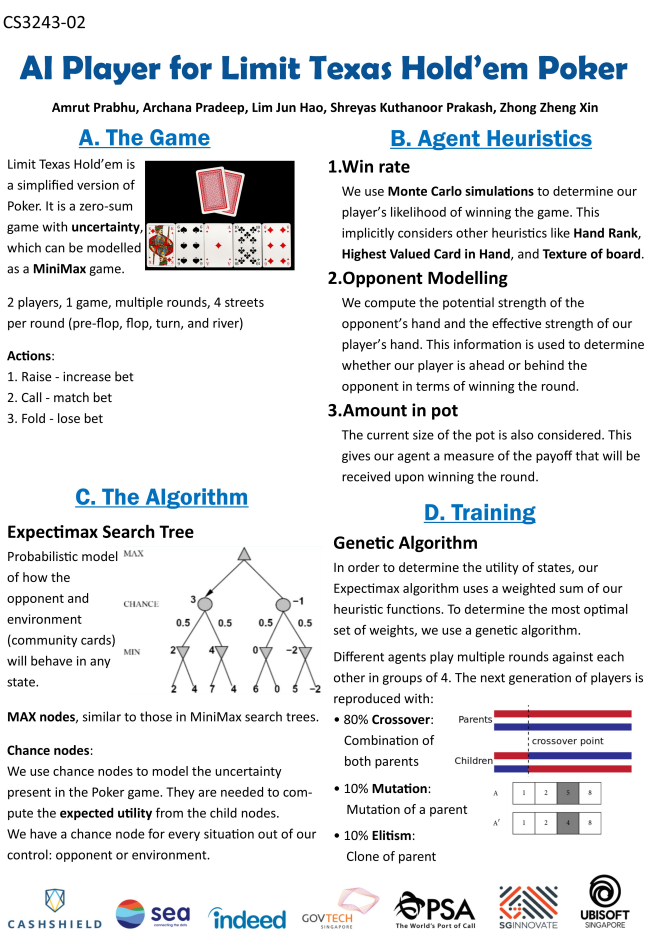

Figure 1: **Live-cell super-resolution microscopy with NanoJ-SRRF.** sG.

2.4 Text

The main body of the text immediately follows the abstract. Use 10-point type in a clear, readable font with 1-point leading (10 on 11).

Finally, (Fig. 1 above) complete

Indent when starting a new paragraph, except after major headings.

2.5 Headings and Sections

When necessary, headings should be used to separate major sections of your paper. (These instructions use many headings to demonstrate their appearance; your paper should have fewer headings.). All headings should be capitalized using Title Case.

Section Headings

Print section headings in 12-point bold type in the style shown in these instructions. Leave a blank space of approximately 10 points above and 4 points below section headings. Number sections with arabic numerals.

Subsection Headings

Print subsection headings in 11-point bold type. Leave a blank space of approximately 8 points above and 3 points below subsection headings. Number subsections with the section number and the subsection number (in arabic numerals) separated by a period.

Subsubsection Headings

Print subsubsection headings in 10-point bold type. Leave a blank space of approximately 6 points above subsubsection headings. Do not number subsubsections.

Special Sections

You may include an unnumbered acknowledgments section, including acknowledgments of help from colleagues.

Any appendices directly follow the text and look like sections, except that they are numbered with capital letters instead of arabic numerals.

The references section is headed "References," printed in the same style as a section heading but without a number. A sample list of references is given at the end of these instructions. Use a consistent format for references, such as that provided by BibTEX. The reference list should not include unpublished work.

2.6 Citations

Citations within the text should include the author's last name and the year of publication, for example [Gottlob, 1992]. Append lowercase letters to the year in cases of ambiguity. Treat multiple authors as in the following examples: [Abelson *et al.*, 1985] or [Baumgartner *et al.*, 2001] (for more than two authors) and [Brachman and Schmolze, 1985] (for two authors). If the author portion of a citation is obvious, omit it, e.g., Nebel [2000]. Collapse multiple citations as follows: [Gottlob *et al.*, 2002; Levesque, 1984a].

2.7 Footnotes

Place footnotes at the bottom of the page in a 9-point font. Refer to them with superscript numbers.[2] Separate them from the text by a short line.[3] Avoid footnotes as much as possible; they interrupt the flow of the text.

3 Illustrations

Place all illustrations (figures, drawings, tables, and photographs) throughout the paper at the places where they are first discussed, rather than at the end of the paper. If placed at the bottom or top of a page, illustrations may run across both columns.

Illustrations must be rendered electronically or scanned and placed directly in your document. All illustrations should be in black and white, as color illustrations may cause problems. Line weights should be 1/2-point or thicker. Avoid screens and superimposing type on patterns as these effects may not reproduce well.

Number illustrations sequentially. Use references of the following form: Figure 1, Table 2, etc. Place illustration

[2]This is how your footnotes should appear.

[3]Note the line separating these footnotes from the text.

numbers and captions under illustrations. Leave a margin of 1/4-inch around the area covered by the illustration and caption. Use 9-point type for captions, labels, and other text in illustrations.

Acknowledgments

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A LaTeX and Word Style Files

The LaTeX and Word style files are available on the IJCAI–18 website, `http://www.ijcai-18.org/`. These style files implement the formatting instructions in this document.

The LaTeX files are `ijcai18.sty` and `ijcai18.tex`, and the BibTeX files are `named.bst` and `ijcai18.bib`. The LaTeX style file is for version 2e of LaTeX, and the BibTeX style file is for version 0.99c of BibTeX (*not* version 0.98i). The `ijcai18.sty` file is the same as the `ijcai07.sty` file used for IJCAI–07.

The Microsoft Word style file consists of a single file, `ijcai18.doc`. This template is the same as the one used for IJCAI–07.

These Microsoft Word and LaTeX files contain the source of the present document and may serve as a formatting sample.

References

[Abelson *et al.*, 1985] Harold Abelson, Gerald Jay Sussman, and Julie Sussman. *Structure and Interpretation of Computer Programs*. MIT Press, Cambridge, Massachusetts, 1985.

[Baumgartner *et al.*, 2001] Robert Baumgartner, Georg Gottlob, and Sergio Flesca. Visual information extraction with Lixto. In *Proceedings of the 27th International Conference on Very Large Databases*, pages 119–128, Rome, Italy, September 2001. Morgan Kaufmann.

[Brachman and Schmolze, 1985] Ronald J. Brachman and James G. Schmolze. An overview of the KL-ONE knowledge representation system. *Cognitive Science*, 9(2):171–216, April–June 1985.

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[Levesque, 1984b] Hector J. Levesque. A logic of implicit and explicit belief. In *Proceedings of the Fourth National Conference on Artificial Intelligence*, pages 198–202, Austin, Texas, August 1984. American Association for Artificial Intelligence.

[Nebel, 2000] Bernhard Nebel. On the compilability and expressive power of propositional planning formalisms. *Journal of Artificial Intelligence Research*, 12:271–315, 2000.