Paris housing price prediction

— Python Data Analysis Course Paper

Information Science and Engineering Department
Yihao Chen
2020010787

Abstract—The abstract should be about 200 words long. DO NOT USE SPECIAL CHARACTERS, SYMBOLS, OR MATH IN YOUR TITLE OR ABSTRACT.

Index Terms—keyword1, keyword2, keyword3.

I. Introduction

THIS template provides students with most of the formatting specifications needed for preparing electronic versions of their papers. PLEASE DO NOT RE-ADJUST THESE MARGINS.

II. Method

Add the specific method of your experiment here.

III. Experiment

Add your experiment here.

IV. Conclusion

Add your conclusion here.

V. How to Create Common Front Matter

The following sections describe general coding for these common elements.

A. Paper Title

The title of your paper is coded as:

\title{The Title of Your Paper}

Please try to avoid the use of math or chemical formulas in your title if possible.

B. Abstracts

The abstract is the first element of a paper after the \maketitle macro is invoked. The coding is simply:

\begin{abstract}
Text of your abstract.
\end{abstract}

Please try to avoid mathematical and chemical formulas in the abstract.

C. Index Terms

The index terms are used to help other researchers discover your paper. Each society may have it's own keyword set. Contact the EIC of your intended publication for this list.

\begin{IEEEkeywords}
Broad band networks, quality of service
\end{IEEEkeywords}

VI. How to Create Common Body Elements

The following sections describe common body text elements and how to code them.

A. Initial Drop Cap Letter

The first text paragraph uses a "drop cap" followed by the first word in ALL CAPS. This is accomplished by using the \IEEEPARstart command as follows:

\IEEEPARstart{T}{his} is the first paragraph of your paper. . .

B. Sections and Subsections

Section headings use standard LaTeX commands: \section, \subsection and \subsubsection. Numbering is handled automatically for you and varies according to type of publication. It is common to not indent the first paragraph following a section head by using \noindent as follows:

\section{Section Head}
\noindent The text of your paragraph . . .

C. Citations to the Bibliography

The coding for the citations are made with the LaTeX \cite command. This will produce individual bracketed reference numbers in the IEEE style. At the top of your LaTeX file you should include:

\usepackage{cite}

For a single citation code as follows:

see \cite{ams}

This will display as: see [1]

For multiple citations code as follows:

\cite{ams,oxford,lacomp}

This will display as [1], [2], [3]

Fig. 1. This is the caption for one fig.

D. Figures

Figures are coded with the standard LaTeX commands as follows:

```
\begin{figure}[!t]
\centering
\includegraphics[width=2.5in]{fig1}
\caption{This is the caption for one fig.}
\label{fig1}
\end{figure}
```

The [!t] argument enables floats to the top of the page to follow IEEE style. Make sure you include:

```
\usepackage{graphicx}
```

at the top of your LaTeX file with the other package declarations.

To cross-reference your figures in the text use the following code example:

```
See figure \ref{fig1} ...
```

This will produce:
See figure 1 . . .

E. Tables

Tables should be coded with the standard LaTeX coding. The following example shows a simple table.

```
\begin{table}
\begin{center}
\caption{Filter design equations  ...}
\label{tab1}
\begin{tabular}{| c | c | c |}
\hline
Order & Arbitrary coefficients &
coefficients\\
of filter & $e_m$ &   $b_{ij}$ \\
\hline
1& $b_{ij}=\hat{e}.\hat{\beta_{ij}}$,
& $b_{00}=0$\\
\hline
```

TABLE I
A Simple Table Example.

Order of filter	Arbitrary coefficients e_m	coefficients b_{ij}
1	$b_{ij} = \hat{e}.\hat{\beta_{ij}},$	$b_{00} = 0$
2	$\beta_{22} = (\ 1, -1, -1,\ \ 1,\ \ 1,\ \ 1)$	
3	$b_{ij} = \hat{e}.\hat{\beta_{ij}},$	$b_{00} = 0,$

```
2&$\beta_{22}=(~1,-1,-1,~~1,~~1,~~1)$ &\\
\hline
3& $b_{ij}=\hat{e}.\hat{\beta_{ij}}$,
& $b_{00}=0$,\\
\hline
\end{tabular}
\end{center}
\end{table}
```

To reference the table in the text, code as follows:

```
Table~\ref{tab1} lists the closed-form...
```

VII. How to Create Common Back Matter Elements

The following sections demonstrate common back matter elements such as Acknowledgments, Bibliographies, Appendicies and Author Biographies.

A. Acknowledgments

This should be a simple paragraph before the bibliography to thank those individuals and institutions who have supported your work on this article.

```
\section{Acknowledgments}
\noindent Text describing those who
supported your paper.
```

B. Bibliographies

References Simplified: A simple way of composing references is to use the \bibitem macro to define the beginning of a reference as in the following examples:

[6] H. Sira-Ramirez. "On the sliding mode control of nonlinear systems," Systems & Control Letters, vol. 19, pp. 303–312, 1992.
coded as:

```
\bibitem{Sira3}
H. Sira-Ramirez. ''On the sliding mode
control of nonlinear systems,''
\textit{Systems \& Control Letters},
vol. 19, pp. 303--312, 1992.
```

C. Biographies and Author Photos

Authors may have options to include their photo or not. Photos should be a bit-map graphic (.tif or .jpg) and sized to fit in the space allowed. Please see the coding samples below:

\begin{IEEEbiographynophoto}{Jane Doe}
Biography text here without a photo.
\end{IEEEbiographynophoto}

or a biography with a photo

\begin{IEEEbiography}[{\includegraphics
[width=1in,height=1.25in,clip,
keepaspectratio]{fig2.png}}]
{Information Science and Engineering Department}
In this paragraph you can place
your educational, professional background
and research and other interests.
\end{IEEEbiography}

References

[1] Mathematics into Type, American Mathematical Society. Online available:

[2] T.W. Chaundy, P.R. Barrett and C. Batey, The Printing of Mathematics, Oxford University Press. London, 1954.

[3] The LATEXCompanion, by F. Mittelbach and M. Goossens

[4] More Math into LaTeX, by G. Grätzer

[5] AMS-StyleGuide-online.pdf, published by the American Mathematical Society

[6] H. Sira-Ramirez. "On the sliding mode control of nonlinear systems," Systems & Control Letters, vol. 19, pp. 303–312, 1992.

[7] A. Levant. "Exact differentiation of signals with unbounded higher derivatives," in Proceedings of the 45th IEEE Conference on Decision and Control, San Diego, California, USA, pp. 5585–5590, 2006.

[8] M. Fliess, C. Join, and H. Sira-Ramirez. "Non-linear estimation is easy," International Journal of Modelling, Identification and Control, vol. 4, no. 1, pp. 12–27, 2008.

[9] R. Ortega, A. Astolfi, G. Bastin, and H. Rodriguez. "Stabilization of food-chain systems using a port-controlled Hamiltonian description," in Proceedings of the American Control Conference, Chicago, Illinois, USA, pp. 2245–2249, 2000.

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