Raciocínio Baseado em Casos

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*Resumo*—Parte da Joana Cada dia se usa mais algoritmos de aprendizado de máquina para tarefas de dados não estruturados, a metodologia é bem semelhante a que pessoas utilizam no dia a dia, porém não há uma pessoa envolvida no processo e sim uma máquina explorando as possibilidades de forma empírica, para que se alcance o objetivo esperado ou se não for possível, que se encontre a melhor opção com o menor impacto possível e que esse impacto seja conhecido.

Palavras-chave—Parte Joana aprendizado de máquina, código, ambiente corporativo, inteligência artificial, segurança

# Introdução

Parte da Joana Aprendizado de Máquina é uma vertente para as carreiras mais excitantes na análise de dados hoje. A medida em que fontes de dados se multiplicam, juntamente com o poder de computação para processá-los, a análise de dados se torna cada vez mais simples a aquisição rápida e de previsões. O aprendizado automático reúne a ciência da computação e estatística para aproveitar esse poder preditivo. Durante as últimas décadas, houve uma verdadeira explosão nas tecnologias computacionais e da informação. Com isso, uma grande quantidade de dados vem sendo gerada nas mais diferentes áreas do conhecimento humano, tais como medicina, biologia, finanças e marketing. O desafio de entender esses dados levou ao desenvolvimento de novas ferramentas no campo da indústria, buscando otimização de recursos e consequentemente dos lucros, controle total sobre o seu ambiente de atuação e execução. Tudo isso não é possível se as informações não estivem devidamente escritas ou que sejam possíveis de serem coletadas, sem isso os algoritmos não conseguem aplicar suas lógicas empíricas a procura do resultado esperado. Este trabalho retrata alguns casos do emprego de aprendizagem de máquina no meio corporativo

# Definição de raciocínio baseado em casos

Parte Joana Inicialmente para uma boa compreensão dos casos que serão apresentados, é importante entender um pouco o funcionamento do Aprendizado de Máquina, esta que é uma área da Inteligência Artificial (IA) cujo objetivo é o desenvolvimento de técnicas computacionais sobre o aprendizado, construindo sistemas e programas que consigam adquirir conhecimento de forma automática.

Visando facilitar a compreensão sobre o assunto, será abordado de maneira prática, explicando casos do cotidiano, onde a AM é implementada em ambientes corporativos, deixando claro o funcionamento desta tecnologia. Por padrão, a AM funciona utilizando exemplos bem sucedidos anteriormente para então adquirir conhecimento e buscar informações onde o padrão já estabelecido por variáveis predefinidas se encaixem.

Vale ressaltar que não existe atualmente uma pré-seleção de variáveis que encontre respostas ou informações desejadas mais rapidamente, não há uma seleção de algoritmos que seja o ideal, é necessário ter um conhecimento prévio do que está buscando, para assim, permitir que a tecnologia funcione de maneira mais eficiente. Cada assunto que desejasse ampliar o conhecimento, deve-se implementar algoritmos que já possuíram sucesso na busca, para então com base nestes a AM ampliar as informações.

# Como funciona

Parte Douglas Before you begin to format your paper, first write and save the content as a separate text file. Complete all content and organizational editing before formatting. Please note sections A-D below for more information on proofreading, spelling and grammar.

Keep your text and graphic files separate until after the text has been formatted and styled. Do not use hard tabs, and limit use of hard returns to only one return at the end of a paragraph. Do not add any kind of pagination anywhere in the paper. Do not number text heads-the template will do that for you.

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Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Abbreviations such as IEEE, SI, MKS, CGS, sc, dc, and rms do not have to be defined. Do not use abbreviations in the title or heads unless they are unavoidable.

## Units

* Use either SI (MKS) or CGS as primary units. (SI units are encouraged.) English units may be used as secondary units (in parentheses). An exception would be the use of English units as identifiers in trade, such as “3.5-inch disk drive”.
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* Do not mix complete spellings and abbreviations of units: “Wb/m2” or “webers per square meter”, not “webers/m2”. Spell out units when they appear in text: “. . . a few henries”, not “. . . a few H”.
* Use a zero before decimal points: “0.25”, not “.25”. Use “cm3”, not “cc”. (*bullet list*)

## Equations

The equations are an exception to the prescribed specifications of this template. You will need to determine whether or not your equation should be typed using either the Times New Roman or the Symbol font (please no other font). To create multileveled equations, it may be necessary to treat the equation as a graphic and insert it into the text after your paper is styled.

Number equations consecutively. Equation numbers, within parentheses, are to position flush right, as in (1), using a right tab stop. To make your equations more compact, you may use the solidus ( / ), the exp function, or appropriate exponents. Italicize Roman symbols for quantities and variables, but not Greek symbols. Use a long dash rather than a hyphen for a minus sign. Punctuate equations with commas or periods when they are part of a sentence, as in:

*a**b* 

Note that the equation is centered using a center tab stop. Be sure that the symbols in your equation have been defined before or immediately following the equation. Use “(1)”, not “Eq. (1)” or “equation (1)”, except at the beginning of a sentence: “Equation (1) is . . .”

## Some Common Mistakes

* The word “data” is plural, not singular.
* The subscript for the permeability of vacuum **0, and other common scientific constants, is zero with subscript formatting, not a lowercase letter “o”.
* In American English, commas, semicolons, periods, question and exclamation marks are located within quotation marks only when a complete thought or name is cited, such as a title or full quotation. When quotation marks are used, instead of a bold or italic typeface, to highlight a word or phrase, punctuation should appear outside of the quotation marks. A parenthetical phrase or statement at the end of a sentence is punctuated outside of the closing parenthesis (like this). (A parenthetical sentence is punctuated within the parentheses.)
* A graph within a graph is an “inset”, not an “insert”. The word alternatively is preferred to the word “alternately” (unless you really mean something that alternates).
* Do not use the word “essentially” to mean “approximately” or “effectively”.
* In your paper title, if the words “that uses” can accurately replace the word “using”, capitalize the “u”; if not, keep using lower-cased.
* Be aware of the different meanings of the homophones “affect” and “effect”, “complement” and “compliment”, “discreet” and “discrete”, “principal” and “principle”.
* Do not confuse “imply” and “infer”.
* The prefix “non” is not a word; it should be joined to the word it modifies, usually without a hyphen.
* There is no period after the “et” in the Latin abbreviation “et al.”.
* The abbreviation “i.e.” means “that is”, and the abbreviation “e.g.” means “for example”.

An excellent style manual for science writers is [7].

# Resusltados viaveis e o que é inviavel até o momento

Parte Leticia After the text edit has been completed, the paper is ready for the template. Duplicate the template file by using the Save As command, and use the naming convention prescribed by your conference for the name of your paper. In this newly created file, highlight all of the contents and import your prepared text file. You are now ready to style your paper; use the scroll down window on the left of the MS Word Formatting toolbar.

## Estado da arte e dificuldades

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### For papers with more than six authors: Add author names horizontally, moving to a third row if needed for more than 8 authors.

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## Identify the Headings

Headings, or heads, are organizational devices that guide the reader through your paper. There are two types: component heads and text heads.

Component heads identify the different components of your paper and are not topically subordinate to each other. Examples include Acknowledgments and References and, for these, the correct style to use is “Heading 5”. Use “figure caption” for your Figure captions, and “table head” for your table title. Run-in heads, such as “Abstract”, will require you to apply a style (in this case, italic) in addition to the style provided by the drop down menu to differentiate the head from the text.

Text heads organize the topics on a relational, hierarchical basis. For example, the paper title is the primary text head because all subsequent material relates and elaborates on this one topic. If there are two or more sub-topics, the next level head (uppercase Roman numerals) should be used and, conversely, if there are not at least two sub-topics, then no subheads should be introduced. Styles named “Heading 1”, “Heading 2”, “Heading 3”, and “Heading 4” are prescribed.

## Figures and Tables

#### Positioning Figures and Tables: Place figures and tables at the top and bottom of columns. Avoid placing them in the middle of columns. Large figures and tables may span across both columns. Figure captions should be below the figures; table heads should appear above the tables. Insert figures and tables after they are cited in the text. Use the abbreviation “Fig. 1”, even at the beginning of a sentence.

1. Table Type Styles

| Table Head | Table Column Head | | |
| --- | --- | --- | --- |
| Table column subhead | Subhead | Subhead |
| copy | More table copya |  |  |

1. Sample of a Table footnote. (*Table footnote*)
2. Example of a figure caption. (*figure caption*)

Figure Labels: Use 8 point Times New Roman for Figure labels. Use words rather than symbols or abbreviations when writing Figure axis labels to avoid confusing the reader. As an example, write the quantity “Magnetization”, or “Magnetization, M”, not just “M”. If including units in the label, present them within parentheses. Do not label axes only with units. In the example, write “Magnetization (A/m)” or “Magnetization {A[m(1)]}”, not just “A/m”. Do not label axes with a ratio of quantities and units. For example, write “Temperature (K)”, not “Temperature/K”.

# Método proposto

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## Desenvolvimento do algoritmo proposto

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# Conclusão

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##### Referencias

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Number footnotes separately in superscripts. Place the actual footnote at the bottom of the column in which it was cited. Do not put footnotes in the abstract or reference list. Use letters for table footnotes.

Unless there are six authors or more give all authors’ names; do not use “et al.”. Papers that have not been published, even if they have been submitted for publication, should be cited as “unpublished” [4]. Papers that have been accepted for publication should be cited as “in press” [5]. Capitalize only the first word in a paper title, except for proper nouns and element symbols.

For papers published in translation journals, please give the English citation first, followed by the original foreign-language citation [6].

1. G. Eason, B. Noble, and I. N. Sneddon, “On certain integrals of Lipschitz-Hankel type involving products of Bessel functions,” Phil. Trans. Roy. Soc. London, vol. A247, pp. 529–551, April 1955. *(references)*
2. J. Clerk Maxwell, A Treatise on Electricity and Magnetism, 3rd ed., vol. 2. Oxford: Clarendon, 1892, pp.68–73.
3. I. S. Jacobs and C. P. Bean, “Fine particles, thin films and exchange anisotropy,” in Magnetism, vol. III, G. T. Rado and H. Suhl, Eds. New York: Academic, 1963, pp. 271–350.
4. K. Elissa, “Title of paper if known,” unpublished.
5. R. Nicole, “Title of paper with only first word capitalized,” J. Name Stand. Abbrev., in press.
6. Y. Yorozu, M. Hirano, K. Oka, and Y. Tagawa, “Electron spectroscopy studies on magneto-optical media and plastic substrate interface,” IEEE Transl. J. Magn. Japan, vol. 2, pp. 740–741, August 1987 [Digests 9th Annual Conf. Magnetics Japan, p. 301, 1982].
7. M. Young, The Technical Writer’s Handbook. Mill Valley, CA: University Science, 1989.