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# Health Data Science L<sup>A</sup>T<sub>E</sub>X Template

Author One<sup>1\*†</sup>, Author Two<sup>2†</sup>, Author Three<sup>2</sup>, and Author Four<sup>1,2</sup>

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## Abstract

The abstract should be a single paragraph written in plain language that a general reader can understand. Do not include citations, figures, tables, or undefined abbreviations in the abstract. Any abbreviations that appear in the title should be defined in the abstract. The length should be 200 words and not exceed 250 words, to include:

- An opening sentence that states the question/problem addressed by the research AND
- Enough background content to give context to the study AND
- A brief statement of primary results AND
- A short concluding sentence.

## Equations

Equations should be provided in a text format, rather than as an image. Equations should be numbered consecutively, in round brackets, on the right-hand side of the page by using the “`\begin{equation}`” command. They should be referred to as Equation 1, etc. in the main text.

For example, see Equation 1 and Equation 2 below.

$$a^2 + b^2 = c^2 \tag{1}$$

$$\begin{aligned} A &= \frac{\pi r^2}{2} \\ &= \frac{1}{2}\pi r^2 \end{aligned} \tag{2}$$

## Figures and Tables

For initial submissions, Figures and Tables should be embedded within the main submission file at their first mention in the text. This will facilitate evaluation of the paper. Figures should be called

25 out within the text and numbered in the order of their citation (with title and caption formatted as  
26 below). See below for detailed instructions on preparation of and preferred formats for your figures.

27 Tables should supplement, not duplicate, the text. They should be called out within the text  
28 and numbered in the order of their citation in the text, as noted in Table 1. As with Figures, please  
29 embed Tables within the text of the initial submission as near to their first reference as possible.  
30 Each table should be preceded by a legend that starts with a short boldface title beginning with (for  
31 example) **Table 1**. Every vertical column should have a heading, followed by a unit of measure (if  
32 any) in parentheses. Units should not change within a column. Centered headings of the body of the  
33 table can be used to break the entries into groups. Footnotes should contain information relevant  
34 to specific cells of the table; use the following symbols in order, as needed: \*, †, ‡, §, ||, ¶, #, \*\*, ††,  
35 etc. (Don't use footnotes in column heads; include any such details in sentence form in the table  
36 legend.)

Table 1: This is an example table.

Column 1	Column 2	Column 3
Cell 1	Cell 2	Cell 3
Cell 4	Cell 5	Cell 6

37 While they should appear embedded in the text at place of first citation in initial submission, we  
38 ask that Figures and Tables also be submitted as separate, raw files should your submission move  
39 past the revision stage. This will make for easier production should the paper be accepted.

40 Figure legends (i.e., captions) should be listed immediately after each figure as it appears em-  
41 bedded in the text. Each figure legend should start with a short boldface title beginning with (for  
42 example) **Figure 1**. See Figure 1 for example. All figure titles should be phrases or sentences; do  
43 not mix the two styles. No single legend should be longer than about 200 words. Nomenclature,  
44 abbreviations, symbols, and units used in a figure legend (and in the figure itself) should match  
45 those used in the text. Individual figure panels are in boldface when first mentioned in a legend:  
46 **(A)**, **(B)**, etc.

## 47 1 Introduction

48 The manuscript should start with a brief introduction that lays out the problem addressed by the  
49 research and describes the paper's importance. The scientific question being investigated should be  
50 described in detail. The introduction should provide sufficient background information to make the  
51 article understandable to readers in other disciplines and provide enough context to ensure that the  
52 implications of the experimental findings are clear.

## 53 2 Methods

54 The methods section should provide sufficient information to allow replication of the results.



Figure 1: This is an example figure.

## 55 **2.1 Experimental Design**

56 Begin with a section titled Experimental Design describing the objectives and design of the study  
57 as well as prespecified components. In this section, please include a diagram or flowchart to show  
58 the entire experimental design and illustrate the most significant elements: materials, treatments,  
59 measurements, data collection, methods of data analysis. This will facilitate the editors, reviewers  
60 and readers to understand and follow the whole concept, design, and results.

## 61 **2.2 Statistical Analysis**

62 Include a section titled Statistical Analysis that fully describes the statistical methods with enough  
63 detail to enable a knowledgeable reader with access to the original data to verify the results. The  
64 values for  $N$ ,  $P$ , and the specific statistical test performed for each experiment should be included  
65 in the appropriate figure legend or main text.

66 This section should be broken up by subheadings. Under exceptional circumstances, when a  
67 particularly lengthy description is required, a portion of the materials and methods can be included  
68 in the Supplementary Materials.

## 69 **3 Results**

70 The results should describe the experiments performed and the findings observed. The results section  
71 should be divided into subsections to delineate different experimental themes. Subheadings should  
72 either be all phrases or all complete sentences. All data must be shown either in the main text or  
73 in the Supplementary Materials.

- 74 • All data should be presented in the Results. No data should be presented for the first time in  
75 the Discussion. Data (such as from Western blots) should be appropriately quantified.
- 76 • Subheadings must be either all complete sentences or all phrases. They should be brief, ideally  
77 less than 10 words. Subheadings should not end in a period. Your paper may have as many  
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80 panel of Figure 3 cannot precede the first mention of all panels of Figure 2. The supplementary  
81 figures (for example, Figure S1) and tables (Table S1) must also be called out in numerical  
82 order.

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84 Include a Discussion that summarizes (but does not merely repeat) your conclusions, elaborates on  
85 their implications or significance, and compares with previously published results. There should be  
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87 the steps that need to be taken for the findings to be applied. Please avoid claims of priority.

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90 needed, should be listed in the order below and include the subheads in bold followed by single  
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96 are explained. A statement that informed consent was obtained must also appear in the manuscript.  
97 All research on humans must have approval from the institutional IRB (Institutional Review Board)  
98 or an equivalent body.

### 99 **Data Availability**

100 Submission of a manuscript to *Health Data Science* implies that the data is freely available upon  
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102 accession number or a placeholder for it. Also include any materials that must be obtained through  
103 an MTA.

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110 funding but was performed as part of the employment of the authors, please name this employer. If  
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114 Describe contributions of each author (use initials) to the paper.

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116 “S. Z. conceived the idea and designed the experiments.”

117 “E. F. M. and J. F. S. conducted the experiments.”

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### 133 **Acknowledgments**

134 Thank others for any contributions. Anyone who made a contribution to the research or manuscript,  
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