

## DETC2018-DRAFT

### DRAFT: DESIGNING IMPROVED TEAMS FOR DATA SCIENCE

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#### ABSTRACT

Teams are ubiquitous. Often, we assume that teams are better at solving problems than individuals working independently. Although early work on software development helped to develop team and organizational theory, there has been little analysis of teams in modern distributed data science competitions. This paper analyzes data science competition teams by considering them to be design teams creating a product. Grounding the analysis by relating it to design is an important decision. Recent work in engineering, design, and psychology has indicated that teams may not be the problem-solving panacea that they were once thought to be. In fact,

#### 1 INTRODUCTION

Teams

#### 2 DATA

This paper focuses on the This work specifically utilizes the Meta Kaggle dataset [1].

#### 3 ANALYSIS

##### 3.1 Metrics

##### 3.1.1 Solution Quality

##### 3.1.2 Effort

#### 3.2 Team Types

##### 3.2.1 Individuals

##### 3.2.2 True Teams

##### 3.2.3 Nominal Teams

#### 4 RESULTS

#### 5 CONCLUSIONS

#### ACKNOWLEDGMENT

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#### MATHEMATICS

Equations should be numbered consecutively beginning with (1) to the end of the paper, including any appendices. The number should be enclosed in parentheses and set flush right in the column on the same line as the equation. An extra line of space should be left above and below a displayed equation or formula.  $\LaTeX$  can automatically keep track of equation numbers in the paper and format almost any equation imaginable. An example is shown in Eqn. (1). The number of a referenced equation in the text should be preceded by Eqn. unless the reference starts a sentence in which case Eqn. should be expanded to Equation.

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**FIGURE 1.** THE FIGURE CAPTION USES CAPITAL LETTERS.

**TABLE 1.** THE TABLE CAPTION USES CAPITAL LETTERS, TOO.

Example	Time	Cost
1	12.5	\$1,000
2	24	\$2,000

$$f(t) = \int_{0+}^t F(t)dt + \frac{dg(t)}{dt} \tag{1}$$

**FIGURES AND TABLES**

All figures should be positioned at the top of the page where possible. All figures should be numbered consecutively and captioned; the caption uses all capital letters, and centered under the figure as shown in Fig. 1. All text within the figure should be no smaller than 7 pt. There should be a minimum two line spaces between figures and text. The number of a referenced figure or table in the text should be preceded by Fig. or Tab. respectively unless the reference starts a sentence in which case Fig. or Tab. should be expanded to Figure or Table.

All tables should be numbered consecutively and captioned; the caption should use all capital letters, and centered above the table as shown in Table 1. The body of the table should be no smaller than 7 pt. There should be a minimum two line spaces between tables and text.

**REFERENCES**

[1] Kaggle Inc., 2016. Meta Kaggle.