### MMiDS Errata

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## 1 Introduction: a first data science problem

• Section 1.2.2, p.17: The last sentence in the proof of the Mean Value Theorem should read: "That implies  $\frac{f(b)-f(a)}{b-a}=f'(c)$  and gives the result."

# 2 Least squares: geometric, algebraic, and numerical aspects

### 3 Optimization theory and algorithms

• Section 3.4, p.163: in the statement of Second Order Convexity Condition Lemma, should be "where" instead of "wherer"

## 4 Singular value decomposition

• Section 4.4, p.237: Question 5 in the self-assessment quiz actually uses Section 4.8.2.1 from the online supplementary materials.

## 5 Spectral graph theory

• Section 5.5, p.304: In Example 5.5.2 (A Random Tree), the function used should be networkx.random\_labeled\_tree. See https://networkx.org/documentation/stable/reference/generated/networkx.generators.trees.random\_labeled\_tree.html.

- 6 Probabilistic models: from simple to complex
- 7 Random walks on graphs and Markov chains
- 8 Neural networks, backpropagation and stochastic gradient descent