#### **Errata**

# Chapter 2

page 50

- As we can see, the result looks somewhat similar for loss f\_a is  $\hat{\theta}=0.32$  page 59:
  - second paragraph: "I(t)'s the theoretical distribution [...]"
  - last paragraph, third sentence: replace "for  $\nu > 2$ " with "for  $\nu <= 2$ "

page 63:

- second paragraph: "how a few of the predictive samples look[s] very flat." page 64:
  - $\bullet\,$  first paragraph: "to the value[s] estimated"

page 65:

• second paragraph: "help their kids grow[n] stronger"

page 66:

• the pooled standard deviation should have a plus (+) instead of a minus (-) sign between the group standard deviations. That is:

$$\frac{\mu_2 - \mu_1}{\sqrt{\frac{\sigma_2^2 + \sigma_1^2}{2}}}$$

page 73:

• first paragraph: "i(t')s also possible"

page 83:

• first paragraph: "And that is, ladies, gentlem[a] (e) n"

#### Chapter 3

page 95:

• first paragraph: "this constrain(t) is relaxed"

page 100:

- second to last paragraph: "interval [-1, 1][. It does not matter about](, regardless of) the scale of the data."
- last paragraph: "how much y change(s)"

page 109:

• code block, 4th and 3rd line from bottom: f-strings missing the "f".

page 116:

• first paragraph: "with an[d] increasing amount"

page 119:

• second paragraph: "They are just (k)nobs"

page 120:

• first paragraph: "Well that's the subject of Chapter [6] (5), Model Comparison"

page 121:

Here,  $\beta$  is a vector of coefficients of length m, that is, the number of (in)dependent variables.

page 128:

• first paragraph: "Using a fo(rest plot)"

page 133:

• Figure 3.26 have been updated

page 135:

• In all of the examples we have seen so far, the (in)dependent variables contribute additively to the predicted variable.

page 136:

• For those cases, we may want to consider the variance as a (linear) function of the (in)dependent variable.

Page 141:

• Exercise 6: "ArviZ functions like plot trace and plot pair"

Page 144: - Exercise 14: This time (a)dd uncertainy to the linear plot - Exercise 14: Exercise should reference Figure 3.17, not Figure 3.18

### Chapter 4

page 154:

• second paragraph: "we take advantage[s]"

page 160:

• third paragraph: "and 50 virgini[n] (c) as"

page 163:

• bottom paragraph: "Chapter 5, [Modeling with Linear Regression] (Model Comparison)"

page 167:

• last line: "x! is the factorial of x, that is,  $x! = x \times (x-1) \times (x-2) \times \cdots \times 2 \times 1$ .
page 170:

• equation (4.25):

$$p(y_j = k_i) = \psi \frac{\mu^{x_i} e^{-\mu}}{x_i!}$$

page 175:

• "Extensions such (as) the ones we [we] saw"

# Chapter 5

page 185:

• first paragraph: "shocked or even disappoint[ing] (ed) by"

page 221:

• Bayes factors are problematic to use, given that they are very sensitive[ly] to prior specification,

#### Chapter 6

page 230:

• last paragraph: "does not necessary depend(s) on data"

Page 218:

• "KL diverge(nce) is useful because it is a way of measuring how close to distributins are

page 237:

• third paragraph: "logistic[s] regression"

page 238:

• first paragraph: "someone already decide(d) the name"

page 239:

• third paragraph: "br[ake] (eak) the stick"

page 241:

- first paragraph: "represent(s) how confiden[ce] (t) we are"
- page 245:
  - first paragraph: "This model also show(s) a less smooth"

page 247:

• last paragraph: "wi[n]ch may lead to"

page 248:

- second paragraph:
  - "thus i[n] (t) may be convenient"
  - "th[is] (ese) models can lead"
- last paragraph: "can be interpreted as continuous mixture model(s)"

## Chapter 7

page 253:

- last paragraph:
  - "we express the first [one] function"
  - "for the second [one] function"

page 255:

- equation 7.4: second term on the RHS should be:  $(x_2 x_2')^2$
- third paragraph: "covariance matrix looks [appears] for different inputs"
- info box: "Thus, the close[st] (r) two points are on the x axis[;] (,) the mo[st] (re) similar we expect their values to be on the y axis"

page 259:

• last paragraph: "and [this is not the exception with] Gaussian processes (are no exception)"

page 261:

- second paragraph: "x is the independent variable[s], and y is the dependent variable[s]"
- third paragraph: "module, [Often, ]for length-scale parameters, priors avoiding zero (often) work better"

page 264:

• first paragraph: "their geographical similar[ly] (ity)"

page 271:

• second paragraph: "counteracting the effect of it('s)[ over] close neighbors" page 279:

• last paragraph: "to the time a disaster[s] happen[s] (ed)" page 280:

• first paragraph: "Let's load [at] the data"

page 285:

• last paragraph: "We may imag[e] (ine) that"

# Chapter 8

page 295:

• second paragraph: "[Also is] (It's also) one of the building block(s)" page 300:

• first paragraph: "Monte Carlo is a very famous casino located in the Principality of Monaco." could be replaced with the factually correct: "Monte Carlo is a ward in the Principality of Monaco where a very famous casino is located".

page 303:

• third paragraph: "The rule to decide whether to accept or reject is known as the Metropolis criteri[a] (on)"

page 318:

• second paragraph: "samples from the noncentered model ha[s] (ve) almost no autocorrelation"

page 319:

- second paragraph: " we will need a [more] (larger) effective sample size" page 327:
  - first paragraph:
    - "One book that is generally refere[e]d (to) as"
    - "You may also want to check (out) the book"