Linear Algebra for the Young Mathematician–Errata

Most of these errata were found by Bruce Gould and Joel Brewster Lewis and his students, whom the author sincerely thanks.

Page 19, line 12: Delete the word homogeneous

Page 20, line 3: $2a'_{22}x_2$ should be $a'_{22}x_2$

Page 20, line -10: $\{u_1, u_2, \ldots, u_m\}$ should be $\{u_1, u_2, \ldots, u_n\}$

Page 21, line 21: $\mathcal{T}(v_2)$ should be $\mathcal{T}_A(v_2)$

Page 21, line 23: $+$ should be $=$

Page 22, line -9: Definition 1.2.10 should be Definition 1.2.9

Page 50, fourth sentence: $(-3)$ row 3 to row 2 should be $(-2)$ row 3 to row 2

Page 50, line -3: row-reduced echelon form should be reduced row-echelon form

Page 50, line -2: some zero should be some zero row

Page 52 second displayed formula: $x_{1j_1}$ should be $x_{j_1}$ and similarly for $x_{2j_2}$ and $x_{kj_k}$

Page 55 Problem 6(b): $ab – bc$ should be $ad – bc$

Page 71 statement of Lemma 3.3.4: with $n > m$ should be with $n > m$ (possibly $n = \infty$)

Page 71 proof of Lemma 3.3.4: Insert as first line of proof: Since $\mathcal{D}$ is linearly dependent if any subset of it is, it suffices to consider the case $\mathcal{D}$ finite.
Page 73, line -11: which has \( m < n \) vectors should be which has \( n < m \) vectors

Page 79, line -1: subset should be subspace

Page 81, proof of Corollary 3.4.4: All five occurrences of \( S \) should be \( \text{Span}(S) \)

Page 101, Exercise 18: function should be continuous function

Page 110, line -7: Corollary 3.5.7 should be Corollary 4.2.7

Page 112 lines -13, -7: \( B \) should be \( \mathcal{B} \)

Page 114, line -11: \( C \) should be \( \mathcal{C} \)

Page 115, lines 19 and 21: Lemma 4.3.7(1) should be Lemma 4.3.7(2) and Lemma 4.3.7(2) should be Lemma 4.3.7(1)

Page 115, line -1: Definition 3.3.1 should be Definition 4.1.1

Page 120, line -8: Let is should be Let us

Page 122, line -3: invertible should be invertible, or nonsingular,

Page 131, line -13: \( \text{Int}_a(\text{Der}(f(x))) \) should be \( \text{Int}_a(\text{Der}(F(x))) \)

Page 186 line 19: \([T]_B \) should be \([T]_B \)

Page 196, lines 1-2: \( v_1 \) has length 1 should be \( v_1 \) has length 5

Page 224, line -1: \[
\begin{bmatrix}
-30 & 36 \\
-25 & 30 \\
\end{bmatrix}
\] should be \[
\begin{bmatrix}
-30 & 36 \\
-25 & 30 \\
\end{bmatrix}
\begin{bmatrix}
6 \\
5 \\
\end{bmatrix}
\]

Page 225, line -8: eigenvector 0 should be eigenvalue 0
Page 299, line -2: in V should be on V

Page 312, line 2: [φ] should be [ψ]

Page 312, line 16: ψ(x, T^*(y)) should be φ(x, T^*(y))

Page 332, line -1: (⟨z, x_i⟩/∥x_i∥)^2 should be (⟨z, x_i⟩/∥x_i∥^2)

Page 333, line 5: (⟨w_0, x_i⟩/∥x_i∥)^2 should be (⟨w_0, x_i⟩/∥x_i∥^2)