Sources

L. Vandenberghe, Lecture notes for EE 236C, UCLA, Spring 2011-2012. http://www.seas.ucla.edu/~vandenbe/ee236c.html.

We visited this source (specifically lecture slides 1, gradient method) to find out more about the iterative gradient descent method as well as get visual inspiration for some of our visualizations.

A. Ahmadi, Lecture notes for ORF 523, Princeton University, Spring 2017-2018. https://www.princeton.edu/~aaa/Public/Teaching/ORF523/ORF523_Lec7.pdf.

We visited this source to find out more about what convexity means for a surface.

A. Nagpal, L1 and L2 Regularization Methods, Towards Data Science, October 13 2017. https://towardsdatascience.com/l1-and-l2-regularization-methods-ce25e7fc831c.

This article describes using L1 Regularization through lasso regression, which includes an absolute value function in its formulation. I referred to this technique when I was discussing the faults of gradient descent because the absolute value function is nondifferentiable and computing the gradient can be troublesome.

H. John, D. Dale, E. Firing, M. Droettboom, Matplotlib 3.8.4 documentation, Matplotlib, 2024, https://matplotlib.org/stable/index.html.

This is the official documentation page for matplotlib, the python graphing library we used for the simulation. I referred to this page several times for syntax and examples of animation and 3D graphing.