

CSE 300 Online 2

Your ID

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1 Graphics

Emacs, Nano, or Vim: Choose your Terminal-Based Text Editor Wisely. Nano is the built-in basic text editor for many popular distros. Its usually already-contained in the distro, doesnt take any learning or getting used to, and allits commands and prompts are displayed at the bottom. Nano is the built-inbasic text editor for many popular distros. Its usually already contained in thedistro, doesnt take any learning or getting used to, and all its commands andprompts are displayed at the bottom. Vi or one of its variants typically comeswith your distro-of-choice. Its considered a modal editor, which means thereare different modes for navigating files and editing text. Because you navigateVi most efficiently through the use of keyboard commands and shortcuts, Vi isbetter experienced than explained.



(a) Emacs

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:::
iLE880j. .:j0888880j:
.LG1tE8880-f8Gjj)L8888E:
iE .8888Et. .8888:
;1 E888 .8888:
D888 .8888:
D888 .8888:
D888 .8888:
D888 .8888:
888W .8888:
W88W .8888:
W88W .8888:
DGGD: .8888:
      .8888:
      W888:
      .8888:
      E8881
      TW88D
```

(b) Nano



(c) Vim

Figure 1: Terminal-based text-editors

2 Equations

In algebra, a quadratic equation is any equation having the form $ax^2+bx+c=0$ where x represents an unknown , and a,b , and c represent known numbers, with $a \neq 0$. It can easily be seen, by polynomial expansion, that the following equation is equivalent to the quadratic equation:

$$\left(x + \frac{b}{2a}\right)^2 = \frac{b^2 - 4ac}{4a^2}$$

Taking the square root of both sides, and isolating x , gives:

$$x = \frac{-b + \sqrt{b^2 - 4ac}}{2a} \tag{1}$$

Some Equations:

$$f_1(t)=\int_3^5\sin(x)dx$$

$$F(x)=A_0+\sum_{n=1}^N\left[A_n\cos\left(\frac{2\pi nx}{P}\right)+B_n\sin\left(\frac{2\pi nx}{P}\right)\right]$$

$$\lim_{x\rightarrow a}\frac{f(x)-f(a)}{x-a}$$

$$\binom{a}{b+c}\binom{\frac{n^2-1}{2}}{n+1}$$

$$h\leq \sqrt{\frac{(s-a)(s-b)(s-c)}{s}}$$

$$6CO_2+6H_2O\rightarrow C_6H_{12}O_6+6O_2$$

$$\begin{bmatrix} a_1 & a_2 & a_3 \\ b_1 & b_2 & b_3 \\ c_1 & c_2 & c_3 \end{bmatrix} \tag{2}$$

3 Bibliography

The recent success of neural networks has boosted research on pattern recognition and data mining. Many machine learning tasks such as object detection in “You Only Look Once” [5] , machine translation [4], and speech recognition [1], which once heavily relied on handcrafted feature engineering to extract in-formative feature sets, has recently been revolutionized by various end-to-end deep learning paradigms, i.e., convolutional neural networks (CNNs) [3], longshortterm memory (LSTM) [2], and autoencoders.

References

- [1] Geoffrey Hinton et al. “Deep neural networks for acoustic modeling in speech recognition”. In: *IEEE Signal processing magazine* 29 (2012).
- [2] Sepp Hochreiter and Jürgen Schmidhuber. “Long short-term memory”. In: *Neural computation* 9.8 (1997), pp. 1735–1780.
- [3] Yann LeCun, Yoshua Bengio, et al. “Convolutional networks for images, speech, and time series”. In: *The handbook of brain theory and neural networks* 3361.10 (1995), p. 1995.
- [4] Minh-Thang Luong, Hieu Pham, and Christopher D Manning. “Effective approaches to attention-based neural machine translation”. In: *arXiv preprint arXiv:1508.04025* (2015).
- [5] Joseph Redmon et al. “You only look once: Unified, real-time object detection”. In: *Proceedings of the IEEE conference on computer vision and pattern recognition*. 2016, pp. 779–788.