

Configure the command line for data science development

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1 Introduction

The command line is a powerful tool for data science development. It allows you to interact with your computer in a way that is not possible with a graphical user interface. In this guide, we will show you how to configure the command line for data science development on both macOS and Linux.

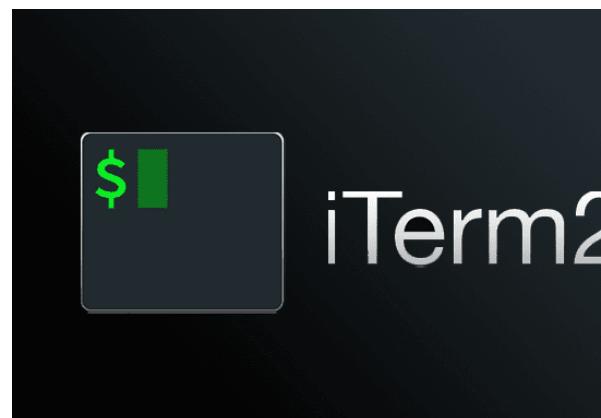


Figure 1: iTerm2

On both macOS and linux, we will be using kitty as our terminal emulator and zsh as our shell.

```
brew install kitty
```

Install kitty on Linux mint as follow:

```
sudo apt-get install kitty
```

There are a huge number of configuration options for kitty. Here are the few that recommended to change for usability purposes.

```
# ~/.config/kitty/kitty.conf

map ctrl+shift+z      toggle_layout stack
draw_minimal_borders yes
background_opacity 0.99
font_family      FiraCode Nerd Font Mono
font_size        14.0
window_margin_width 5
background_image   /Users/zenn/docs/backgrounds/NxyVIMp.jpeg
window_border_width 1.5pt
include current-theme.conf
```

2 Notes on setting up iterm2:

Useful Keyboard shortcuts

```
cmd + shift + enter -> maximize current window (especially useful when you use split windows)
cmd + t -> open a new tab
cmd + w -> close focused window
cmd + d -> split window vertically
cmd + shift + d -> split window horizontally
cmd + {1..9} -> Move to tab with number {1..9}
cmd + i -> change name of the tab
```

Set up the status bar for time, git, directory. This reduces the burden on the shell prompt.

settings/profiles/session/

check “status bar enabled” at bottom of screen

In interactive screen drag “current directory”, “Empty space”, and “git state” into Active components section.

settings/appearance

“Status Bar location” select “Bottom”

or alternatively

cd ~

ln -s ~/Dropbox/dotfiles/iterm2Profiles.json .

in term2 profiles/Other Actions/Import JSON profiles
iterm2Profiles.json

Set out the configuration needs for the shell

Good place to start:

discuss plugins particularly

z vs scd vs wd

3 .zshrc

```
PS1='%B%2~ %(%?:%F{green} %f:%F{red} %f)%b '
setopt auto_cd auto_pushd pushd_ignore_dups pushdminus
bindkey -v
autoload -U compinit && compinit -u && compinit && compdef _dirs d
source /opt/homebrew/etc/profile.d/autojump.sh
source ~/.iterm2_shell_integration.zsh
source /opt/homebrew/share/zsh-syntax-highlighting/zsh-syntax-highlighting.zsh
source /opt/homebrew/share/zsh-autosuggestions/zsh-autosuggestions.zsh
source ~/.config/zsh/.zsh_aliases
source ~/.config/zsh/.zsh_functions
source ~/.config/zsh/.zsh_exports
```

3.1 ~/.config/zsh/.zsh_aliases

```
alias mm='mutt'
alias sk='open -a Skim'
alias vc='vim ~/.vimrc'
alias vz='vim ~/.zshrc'
alias sz='source ~/.zshrc'
alias p2='enscript -C -2 -r -j --media=Letter'
alias p1='enscript -j --media=Letter'
alias yr="yabai --restart-service"
alias lt='eza -lrFha -sold'
alias mvim="/Applications/MacVim.app/Contents/bin/mvim"
alias tp='trash-put -v'
alias rm='echo "This is not the command you are looking for."; false'
alias s='scd'
alias ZZ='exit'
alias r="radian"
alias nt="nvim"
alias -g ...='..../..'
alias -g ....='.../.../..'
alias -g .....='.../.../.../..'
alias -g .....='.../.../.../.../..'

alias -- --='cd -'
alias 1='cd -1'
alias 2='cd -2'
alias 3='cd -3'
alias 4='cd -4'
alias 5='cd -5'
alias 6='cd -6'
alias 7='cd -7'
alias 8='cd -8'
alias 9='cd -9'

alias md='mkdir -p'
alias rd=rmdir

# List directory contents
alias lsa='ls -lah'
```

```

alias l='ls -lah'
alias ll='ls -lh'
alias la='ls -lAh'

# search for directory and cd to it
alias sd="cd ~ && cd \$(find * -type d -not -path '*/Library/*' | fzf)"

```

3.2 ~/.config/zsh/.zsh_exports

```

export EDITOR="vim"
export TEXINPUTS='.:~/Users/zenn/shr/images:/Users/zenn/shr:'
export PATH=".:/local/bin:/opt/homebrew/sbin:/opt/homebrew/bin:$PATH:$HOME/bin"
export vpc_id="vpc-14814b73"
export subnet_id="subnet-f02c90ab"
export ami_id="ami-014d05e6b24240371"
export keypair_name="rebecca_app"
export proj_name="rebecca_app"
export instance_type="t2.micro"
export storage_size="30"
export ami_id="ami-014d05e6b24240371"
export security_grp="sg-008cace70d32f6267"
export static_ip='13.56.101.209'

if type rg &> /dev/null; then
    export FZF_DEFAULT_COMMAND='rg --files --hidden --no-ignore-vcs'
    export FZF_DEFAULT_OPTS='--height 50% --border'
fi

export ZSH_AUTOSUGGEST_HIGHLIGHT_STYLE="fg=011,bg=black,bold,underline"
LS_COLORS+='pi=01;33:so=01;33:do=01;33:bd=01;33:cd=01;33:su=01;35:sg=01;35:ca=01;35:ex=01;32'
export LSCOLORS='ExGxDxDxCxDxDxFxFxExEx'

```

3.3 ~/.config/zsh/.zsh_functions

```
function d () {
```

```

if [[ -n $1 ]]; then
    dirs "$@"
else
    dirs -v | head -n 10
fi
}

mma () { /Applications/Mathematica.app/Contents/MacOS/WolframKernel -script $1 }
function gz() {
    git add .
    git commit -a -m "$1"
    git push
}

```

4 References

[Configuring Zsh Without Dependencies](#)

read top 5 medium articles [My Terminal Setup: iTerm2 + ZSH + Powerlevel10k](#) | by Zubair Ahmed | Webtips | Medium

[Settings For a Better iTerm2 Experience](#)

[iTerm2 Setup and Customization](#) | CodeAhoy

4.1 Prerequisites

In development

4.2 Step-by-Step Implementation

In development

4.3 Key Takeaways

In development

4.4 Further Reading

In development