

## Tmux Basics

Prefix: `Ctrl+O`

### Sessions & Windows:

- Prefix + `c` — New window
- Option+1-9 — Jump to window
- Prefix + `&` — Close window
- Prefix + `,` — Rename window
- Prefix + `w` — Window list
- Prefix + `p/n` — Prev/next window

### Panes:

- Prefix + `|` — Vertical split
- Prefix + `-` — Horizontal split
- Prefix + `h/j/k/l` — Navigate
- Prefix + `H/J/K/L` — Resize
- Prefix + `x` — Close pane
- Prefix + `z` — Zoom pane
- Prefix + `q` — Show pane numbers

### Copy Mode (vi-style):

- Prefix + `[` — Enter copy mode
- `v` — Begin selection
- `y` — Copy & exit
- Prefix + `]` — Paste
- `/` — Search forward
- `?` — Search backward

### Session Management:

- Prefix + `d` — Detach
- Prefix + `s` — Session list
- Prefix + `(/)` — Prev/next session
- Prefix + `$` — Rename session

### Admin:

- Prefix + `r` — Reload config
- Prefix + `?` — List all keybinds
- Prefix + `t` — Show clock

## Neovim: Navigation

Leader: Space

### Files & Buffers:

- `<leader>ff` — Find files
- `<leader>fg` — Git files
- `<leader>fh` — Recent files
- `<leader>fb` — Buffer list
- Shift+H/L — Prev/next buffer
- `<leader>bd` — Delete buffer
- `<leader>bo` — Delete other buffers
- `<leader>e` — Toggle explorer
- `<leader>fn` — New file

### Windows:

- Ctrl+h/j/k/l — Move between
- `<leader>-` — Split below
- `<leader>|` — Split right
- `<leader>wd` — Delete window
- `<leader>wm` — Maximize window
- Ctrl+arrows — Resize window

### Tabs:

- `<leader><tab><tab>` — New tab
- `<leader><tab>d` — Close tab
- `<leader><tab>[ / ]` — Prev/next tab

### Search in File:

- `/` — Search forward
- `?` — Search backward
- `n/N` — Next/prev match
- `*/#` — Search word at cursor
- `<leader>ur` — Clear highlights

### Editing Basics:

- `jj` — Exit insert mode
- `u` — Undo
- Ctrl+r — Redo
- Ctrl+s — Save file

## Neovim: LSP & Code

Code Intelligence

### Go To:

- `gd` — Go to definition
- `gr` — Find references
- `gI` — Go to implementation
- `gy` — Go to type def
- `gD` — Go to declaration
- `K` — Hover documentation
- `gK` — Signature help

### Actions:

- `<leader>ca` — Code action
- `<leader>cf` — Format file/selection
- `<leader>cr` — Rename symbol
- `<leader>cR` — Rename file
- `<leader>cc` — Run codelens

### Diagnostics:

- `]d` / `[d` — Next/prev diagnostic
- `]e` / `[e` — Next/prev error
- `]w` / `[w` — Next/prev warning
- `<leader>cd` — Line diagnostics
- `<leader>xx` — All diagnostics

### Project Search:

- `<leader>fs` — Live grep
- `<leader>fw` — Grep word at cursor
- `<leader>fd` — Document diagnostics
- `<leader>fl` — Document symbols
- `<leader>ss` — LSP symbols
- `<leader>sS` — Workspace symbols
- `<leader>sr` — Search & replace

### Flash (Quick Jump):

- `s` — Flash forward
- `S` — Flash TreeSitter
- `r` — Remote Flash (operator)

### Comments:

- `gcc` — Toggle line comment
- `gco` — Comment below
- `gc0` — Comment above

## Shell Essentials

Common Aliases

### Navigation:

- `..` — Up 1 level
- `...` — Up 2 levels
- `.3/.4/.5/.6` — Up N levels
- `mcd <dir>` — Mkdir + cd
- `cdf` — CD to Finder window

### List Files:

- `ls` — Enhanced (colors, etc)
- `lt` — Sort by time
- `lk` — Sort by size
- `lx` — Sort by extension
- `lr` — Recursive tree

### Files & Archives:

- `extract <file>` — Unzip any format
- `zipf <dir>` — Create ZIP
- `numFiles` — Count files in dir
- `ducks` — Top 10 largest items

### Search & Find:

- `ff <name>` — Find file by name
- `ffs <prefix>` — Files starting with
- `ffe <suffix>` — Files ending with
- `ft "text"` — Find text in files
- `qfind` — Quick find

### System & Process:

- `c` — Clear screen
- `memHogsTop` — Top memory users
- `cpuHogs` — Top CPU users
- `myIP` — Show public IP
- `myPs` — My processes
- `tm <proc>` — Find process

### macOS Specific:

- `f` — Open Finder here
- `ql <file>` — Quick Look
- `trash <file>` — Move to trash
- `spotlight <q>` — Spotlight search

### fzf-lua Preview:

- `Ctrl+d/u` — Page up/down
- `Ctrl+f/b` — Half-page scroll

## Tmux Advanced Session Management

### Command Line:

- tmux new -s <name> — New session
- tmux attach -t <name> — Attach
- tmux ls — List sessions
- tmux kill-session -t <name>
- tmux kill-server — Kill all

### Pane Operations:

- Prefix + {} — Swap pane left/right
- Prefix + ! — Break pane to window
- Prefix + m — Mark pane
- Prefix + space — Cycle layouts
- setw synchronize-panes — Sync

### Window Operations:

- Prefix + . — Move window
- Prefix + f — Find window
- Prefix + i — Window info

### Scrollbar & History:

- Prefix + PgUp — Enter scroll mode
- q — Exit scroll mode
- g/G — Top/bottom of history

### Customization:

- set -g mouse on — Mouse support
- set -g base-index 1 — Start at 1
- set -g history-limit 10000

## Git Integration Git (LazyVim)

### Status & Diff:

- <leader>gs — Git status
- <leader>gd — Diff hunks
- <leader>gD — Diff vs origin

### History & Blame:

- <leader>gl — Log (repo root)
- <leader>gL — Log (cwd)
- <leader>gf — File history
- <leader>gb — Blame line

### Remote & GitHub:

- <leader>gB — Browse in browser
- <leader>gY — Copy URL
- <leader>gi — GitHub issues (open)
- <leader>gI — GitHub issues (all)
- <leader>gp — GitHub PRs (open)
- <leader>gP — GitHub PRs (all)

### Stash:

- <leader>gS — Git stash list

### Hunk Navigation:

- ]h / [h — Next/prev hunk
- Stage/unstage in status view

## Neovim Advanced Power Features

### Trouble (Better Lists):

- <leader>xx — All diagnostics
- <leader>xX — Buffer diagnostics
- <leader>cs — Symbols outline
- <leader>cS — LSP references
- <leader>xl — Location list
- <leader>xq — Quickfix list
- [q / ]q — Prev/next quickfix

### UI Toggles:

- <leader>uf — Auto format
- <leader>uF — Auto format (buffer)
- <leader>us — Spelling
- <leader>uw — Word wrap
- <leader>ul — Line numbers
- <leader>uL — Relative numbers
- <leader>ud — Diagnostics
- <leader>uc — Conceal
- <leader>uh — Inlay hints
- <leader>uT — Treesitter highlight

### Sessions:

- <leader>qs — Restore session
- <leader>ql — Restore last
- <leader>qd — Don't save session
- <leader>qS — Select session

### Tools & Info:

- <leader>ft — Terminal (root)
- <leader>fT — Terminal (cwd)
- <c-/> — Toggle terminal
- <leader>l — Lazy (plugins)
- <leader>cm — Mason (LSP)
- <leader>cl — LSP info

### Search Everything:

- <leader>sh — Help pages
- <leader>sk — Keymaps
- <leader>sc — Commands
- <leader>sa — Autocmds
- <leader>sH — Highlights
- <leader>su — Undo tree
- <leader>s/ — Search history
- <leader>sm — Marks
- <leader>sj — Jumps
- <leader>s" — Registers

## Shell Advanced Utilities & Functions

### Process Management:

- memHogsPs — Memory (ps format)
- topForever — Loop top (10s)
- ttop — Lightweight top
- findPid <name> — Get PID

### Network & Connectivity:

- netCons — All open sockets
- lsock — Open sockets (sudo)
- lsockU — UDP sockets only
- lsockT — TCP sockets only
- openPorts — Listening ports
- ipInfo0 — en0 interface info
- ipInfo1 — en1 interface info

### macOS Extras:

- flushDNS — Clear DNS cache
- ii — Display host info
- showBlocked — Show blocked IPs
- DT — Pipe to Desktop file

### Python Development:

- venv — Activate ./venv or .venv

### Shell Management:

- showa <pat> — Search aliases
- szsh — Reload .zshrc
- path — Display PATH dirs

### Archive Formats (extract):

- .tar.bz2 .tar.gz .bz2
- .rar .gz .tar .tbz2
- .tgz .zip .Z .7z

### Surround (mini.surround):

- gsa — Add surrounding
- gsr — Replace surrounding
- gsd — Delete surrounding

### Folding:

- za — Toggle fold
- zc/zo — Close/open fold
- zM/zR — Close/open all folds
- zj/zk — Next/prev fold