

# UNIX basic

- Access:

from PC, UNIX/Linux: *SSH Securite Shell client*

*On a PC*, double-click the icon, click “Quick Connect”

-“host name”, put in IP address (e.g., [omega.uta.edu](http://omega.uta.edu))

-“user name”, input your account name (e.g., UTA NetID)

-port, 22

then, click ‘connect’

-password, type it in (e.g., your UTA email password)

- To get out: type *exit*
- or use *putty* (freeware) to connect from PC (expert)

<http://www.putty.org/>

# Get help from UTA OIT

- <http://www.uta.edu/oit/cs/unix/unixguide/Introduction-to-UNIX.php>  
for UNIX/LINUX tutorial  
Click **SSH** in “Software” for SSH details
- Software download:  
<http://www.uta.edu/oit/cs/software/downloads.php>  
for
- You need to install VPN for off-campus use
- we are using **omega.uta.edu** as host
- Multiple windows, file transfer to/back PC

# More UNIX basic

- Show manual on a command: **man** *command* (or **man -k** *keyword*)
- Directory: a tree structure, start from \$HOME
- Info about the current directory: **ls** (-l, -s, ...), **pwd** (show path)
- Create/eliminate a directory (from the current one): **mkdir/rmdir** *name*
- Change directories: up: **cd ../** Down: **cd** *name1/name2/*
- File processing
  - Create a file: **touch** *name*, or **vi** (see editor)
  - head/tail** -n *number* *filename*
  - more/cat** *filename*
  - cut** -c1-20,40-50 *file1*: keep only column 1-20 and 40-50 of *file1*
  - grep** (-i) *string* *filename*
  - diff** *file1 file2* (> *file\_out*)

# More UNIX basic

- Archive a group of files: **tar cf** bundle\_name file1, file2, ...  
to open it: **tar xvf** bundle\_name (be careful)
- Pack/unpack a file: **gzip/gunzip** filename
- **ps** (-u username)
- Control\_C to interrupt
- Mail/mail (-s subject) name@IP\_address
- forward your mail to your mail\_server
- Create your own command: **alias** name def.  
put everything in your .aliases, let .login source it

# Editor vi

- **vi** filename (exist or not) (now you are in change mode)
- Get into the insert mode: type “i” for input, “a” to append  
-out of the mode: type ‘esc’ key
- To get out of vi editor: get to the line mode by typing “:”, then “q” for quit and wq for **save** and **quit**
- In change mode: key *H,J,K,L* (←↓↑→) move cursor  
-change the current word: cw, type the new word, then ‘esc’  
-replace a character: r/R,  
-delete the current character: x
- Search a string downward: “/string” (? For upward)
- Delete the current line: dd
- Undo: u
- Copy/paster a line: yy/p
- Go to top/end: 1G/G
- Change page forward/backward: ctrl-f/ctrl-b

Refer to *vimtutor* (type it) on omega, ‘:’ then ‘q’ to quit.