

nn

v nl

P

v nl

nn

v nl

nn

	v nl	
	nn	

v nl

v nl

Python
Python

OS

nn

nn

P

ck

Hadoop

HDFS HDFS ;
HDFS
Hive
HQL

Python
HTTP
HTTP
Cookie

urllib3 Requests HTTP
Chrome Xpath Beautiful Soup
JSON

matplotlib pyplot

	v nl	v nl v nl v nl
	nn	nn nn nn P nn ck nn
		ck ck p ck Pn

		! d p ! ! !
		p ! !n ! ! nl np ck !
		p ! !n ! ! nl np ck !
		p ! !n ! ! nl np ck !