University Computer Science

Glossary · every term in the course, A–Z

English

A*

A* search

accuracy
/ˈækjʊrəsi/

act
/ækt/

addition rule
/əˈdɪʃn ruːl/

addressing mode
/əˈdresɪŋ məʊd/

adjacency list
/əˈdʒeɪsənsi lɪst/

adjacency matrix

algorithm design and analysis

aliases

aliasing
/ˈeɪlɪəsɪŋ/

ALU
/ˌeɪ el ˈjuː/

ambiguity
/ˌæmbɪˈgjuːɪti/

application

argument
/ˈɑːgjuːmənt/

arrange

array
/əˈreɪ/

artificial intelligence and machine learning

ASCII
/ˈæski/

exercises.lol exercises.com.cn

English

assembler
/əˈsemblə/
assert

asymmetric
/ˌeɪsɪˈmetrɪk/
atomicity

authentication
/ɔːˌθentɪˈkeɪʃn/
authorisation
/ˌɔːθəraɪˈzeɪʃn/
average memory access time

B-tree

backward chaining

base case
/beɪs keɪs/
Bayes' theorem

Bayesian network

BFS

Big-O
/bɪg əʊ/
Big-Θ

bijective

binary search
/ˈbaɪnəri sɜːtʃ/
binary search tree
/ˈbaɪnəri sɜːtʃ triː/
block offset

blocked
/blɒkt/
Boyce-Codd

branching model

English

breadth-first
/bredθ fɜːst/
byte-addressable

cache
/kæʃ/
cardinality
/ˌkɑːdɪˈnælɪti/
chaining
/ˈtʃeɪnɪŋ/
class
/klæs/
Class attributes

clustering

cohesion
/kəʊˈhiːʒn/
collision
/kəˈlɪʒn/
combination
/ˌkɒmbɪˈneɪʃn/
compiler
/kəmˈpaɪlə/
composition
/ˌkɒmpəˈzɪʃn/
computer architecture

computer networks

computer systems fundamentals

conditional probability
/kənˈdɪʃənl ˌprɒbəˈbɪlɪti/
confidentiality
/ˌkɒnfɪˌdenʃiˈæləti/
confusion matrix

consistency

context switch
/ˈkɒntekst swɪtʃ/

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English

context-free grammars

context-free languages

contradiction
/ˌkɒntrəˈdɪkʃn/
contraposition

control
/kənˈtrəʊl/
controller

coupling

CPI

CRC

cuts

data governance

data structures and
algorithms

databases
/ˈdeɪtəbeɪsɪz/
datapath

debugging
/ˈdiːbʌgɪŋ/
decision boundary

decomposition
/ˌdiːkɒmpəˈzɪʃn/
delete anomaly

dependency order

dependency rule

depth-first
/depθ fɜːst/
derivation

English

deterministic finite automaton

DFS

diagonalisation
/daɪˌægənəlaɪˈzeɪʃn/

dictionary
/ˈdɪkʃənəri/

direct proof

direct-mapped cache

discrete mathematics

distributed system

DMA

DNS
/ˌdiː enˈes/

DP table

duck typing

durability

dynamic dispatch

dynamic programming

encapsulated

encapsulation
/ɪnˌkæpsjʊˈleɪʃn/

entity
/ˈentɪti/

equality
/iːˈkwɒlɪti/

equivalence relation
/ɪˈkwɪvələns rɪˈleɪʃn/

error disparity

evicts

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English

exceptions

exchange argument

FAT

FCFS

fetch-decode-execute cycle

file
/faɪl/
foreign key
/ˈfɒrən kiː/
forward chaining

forwarding

fragile base class

full adder
/fʊl ˈædə/
function
/ˈfʌŋkʃn/
functional dependency

functional requirement

Gantt chart
/gænt tʃɑːt/
gradient descent
/ˈgreɪdɪənt dɪˈsent/
greedy algorithm

half adder
/hɑːf ˈædə/
halting problem

handshake lemma

happens-before

hash function
/hæʃ ˈfʌŋkʃn/

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heap
/hiːp/
heuristic
/hjuːˈrɪstɪk/
HTTP
/ˌeɪtʃ tiː tiː ˈpiː/
I-type

idempotence

identity
/aɪˈdentɪti/
IEEE-754

inclusion–exclusion

index
/ˈɪndeks/
induction hypothesis

inductive step
/ɪnˈdʌktɪv step/
inference
/ˈɪnfərəns/
infinite loop
/ˈɪnfɪnət luːp/
informed

inheritance
/ɪnˈherɪtəns/
injective
/ɪnˈdʒektɪv/
inode

insert anomaly

insertion sort
/ɪnˈsɜːʃn sɔːt/
instance
/ˈɪnstəns/
instance attributes

instruction set architecture

English

instruction-level parallelism

interface
/ˈɪntəfeɪs/
interleaving

intermediate representation

interrupt-driven I/O

invariant
/ɪnˈveərɪənt/
inversion
/ɪnˈvɜːʃn/
IP address
/ˌaɪ ˈpiː əˈdres/
isolation
/ˌaɪsəˈleɪʃn/
isolation levels

iteration
/ˌɪtəˈreɪʃn/
join
/dʒɔɪn/
journaling

kernel mode

Kruskal

Lamport clock

layering
/ˈleɪərɪŋ/
layers
/ˈleɪəz/
learning rate
/ˈlɜːnɪŋ reɪt/
least privilege

linear regression
/ˈlɪnɪə rɪˈgreʃn/
linear search
/ˈlɪnɪə sɜːtʃ/

English

link
/lɪŋk/
linked list
/lɪŋkt lɪst/
linker
/ˈlɪŋkə/
list
/lɪst/
load factor
/ləʊd ˈfæktə/
load-store

local scope
/ˈləʊkl skəʊp/
locality

lock

logistic regression

longest prefix match

loss surface

MAC
/mæk/
MAC address
/mæk əˈdres/
memory hierarchy

merge conflicts

merge sort
/mɜːdʒ sɔːt/
min-heap

multiplexer
/ˈmʌltɪpleksə/
multiplication rule
/ˌmʌltɪplɪˈkeɪʃn ruːl/
mutual exclusion

NAND

network
/ˈnetwɜːk/
node
/nəʊd/
non-functional requirement

NP-completeness

object
/ˈɒbdʒekt/
object-oriented
programming
/ˈɒbdʒekt ˈɔːrɪəntɪd ˈprəʊgræmɪŋ/
open addressing

open/closed

operating systems

overflow
/ˌəʊvəˈfləʊ/
page fault
/peɪdʒ fɒlt/
page table
/peɪdʒ ˈteɪbl/
parameter
/pəˈræmɪtə/
parameterised statements

parse tree

partial failure

permutation
/ˌpɜːmjuːˈteɪʃn/
physical
/ˈfɪzɪkl/
physical frame

pipelining
/ˈpaɪplaɪnɪŋ/
polymorphism
/ˈpɒlɪmɔːfɪzəm/

English

power set

precision
/prɪˈsɪʒn/
predicate logic

preprocessor
/prɪˈprəʊsesə/
primary key
/ˈpraɪməri kiː/
principle of least privilege
/ˈprɪnsɪpl ɒv liːst ˈprɪvɪlɪdʒ/
process
/ˈprəʊses/
process control block
/ˈprəʊses kənˈtrəʊl blɒk/
programmed I/O

programming fundamentals
/ˈprəʊgræmɪŋ ˌfʌndəˈmentlz/
projection
/prəˈdʒekʃn/
propositional logic

pumping lemma

query plan

queue
/kjuː/
quicksort

R-type

read-after-write hazard

ready

recall
/ˈriːkɔːl/
recurrence
/rɪˈkʌrəns/
recursion tree

English

reduction
/rɪˈdʌkʃn/
reference
/ˈrefrəns/
referential integrity
/ˌrefəˈrenʃl ɪnˈtegrɪti/
relationship
/rɪˈleɪʃənʃɪp/
requirements engineering

retires

retro

return value
/rɪˈtɜːn ˈvæljuː/
rings

RISC
/rɪsk/
round robin
/raʊnd ˈrɒbɪn/
rounding
/ˈraʊndɪŋ/
routing table
/ˈraʊtɪŋ ˈteɪbl/
running

runtime type

sample space
/ˈsæmpl speɪs/
search tree

second normal form

selection
/sɪˈlekʃn/
serializability

service
/ˈsɜːvɪs/

English

set
/set/
single responsibility principle
SJF
SMT
software engineering
spin
/spɪn/
stack
/stæk/
standup
states
/steɪts/
status codes
string
/strɪŋ/
substitution
/ˌsʌbstɪˈtjuːʃn/
surjective
/sɜːˈdʒektɪv/
symbol table
/ˈsɪmbl ˈteɪbl/
symbolic reasoning
symmetric
/sɪˈmetrɪk/
system call
tag
/tæg/
TCP
/ˌtiː siː ˈpiː/
test pyramid
testing
/ˈtestɪŋ/

theory of computation and compilers

third normal form

thread

threat model

three-way handshake

TLB

TLS
/ˌtiː el ˈes/

tokens
/ˈtəʊkənz/

trace table
/treɪs ˈteɪbl/

transaction
/trænˈsækʃn/

transitions
/trænˈsɪʃnz/

transport
/ˈtrænspɔːt/

tree
/triː/

truth table
/truːθ ˈteɪbl/

TTL

tuple
/ˈtuːpl/

Turing machine

turnaround time

two's complement
/tuːz ˈkɒmplɪmənt/

two-phase locking

type
/taɪp/

English

UDP
/ˌjuː diː ˈpiː/
Unicode
/ˈjuːnɪkəʊd/
Unicode
/ˈjuːnɪkəʊd/
uninformed

unit tests

unsigned
/ʌnˈsaɪnd/
unsigned
/ʌnˈsaɪnd/
update anomaly

use case

user stories

value
/ˈvæljuː/
variables
/ˈveərɪəblz/
virtual address

virtual memory
/ˈvɜːtʃuːəl ˈmeməri/
waiting time