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/

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/

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
/ˌdi: en ˈes/

DP table

duck typing

durability

dynamic dispatch

dynamic programming

encapsulated

encapsulation
/ɪnˌkæpsjʊˈleɪʃn/

entity
/ˈentɪti/

equality
/iːˈkwɒlɪti/

equivalence relation
/ɪˈkwɪvələns rɪˈleɪʃn/

error disparity

evicts

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/

English

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
/'lɪŋkə/
list
/lɪst/
load factor
/ləʊd 'fæktə/
load-store

local scope
/'ləʊkl skəʊp/
locality

lock

logistic regression

longest prefix match

loss surface

MAC
/mæk/
MAC address
/mæk ə'dres/
memory hierarchy

merge conflicts

merge sort
/mɜːdʒ sɔːt/
min-heap

multiplexer
/'mʌltɪpleksə/
multiplication rule
/ˌmʌltɪplɪ'keɪʃn ruːl/
mutual exclusion

NAND

English

network
/'netwɜːk/
node
/nəʊd/
non-functional requirement

NP-completeness

object
/'ɒbdʒekt/
object-oriented
programming
/'ɒbdʒekt 'ɔːrɪəntɪd 'prəʊgræmɪŋ/
open addressing

open/closed

operating systems

overflow
/ˌəʊvə'fləʊ/
page fault
/peɪdʒ fɒlt/
page table
/peɪdʒ 'teɪbl/
parameter
/pə'ræmɪtə/
parameterised statements

parse tree

partial failure

permutation
/ˌpɜːmjuː'teɪʃn/
physical
/'fɪzɪkl/
physical frame

pipelining
/'paɪplaɪnɪŋ/
polymorphism
/'pɒlɪmɔːfɪzəm/

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/

set
/set/
single responsibility
principle
SJF

SMT

software engineering

spin
/spɪn/
stack
/stæk/
standup

states
/steɪts/
status codes

string
/strɪŋ/
substitution
/ˌsʌbstɪ'tju:ʃn/
surjective
/sɜ:'dʒektɪv/
symbol table
/'sɪmbl 'teɪbl/
symbolic reasoning

symmetric
/sɪ'metrɪk/
system call

tag
/tæg/
TCP
/ˌti: si: 'pi:/
test pyramid

testing
/'testɪŋ/

theory of computation and
compilers
third normal form

thread

threat model

three-way handshake

TLB

TLS
/ˌti: el 'es/
tokens
/'təʊkənz/
trace table
/treɪs 'teɪbl/
transaction
/træn'sækʃn/
transitions
/træn'sɪʃnz/
transport
/'trænspɔ:t/
tree
/tri:/
truth table
/tru:θ 'teɪbl/
TTL

tuple
/'tu:pl/
Turing machine

turnaround time

two's complement
/tu:z 'kɒmplɪmənt/
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