

640 KB ought  
to be enough  
for anybody.

- BILL GATES,  
CIRCA 1981

ANY FOOL CAN WRITE CODE  
THAT A COMPUTER CAN  
UNDERSTAND. GOOD  
PROGRAMMERS WRITE  
CODE THAT HUMANS CAN  
UNDERSTAND.

— MARTIN FOWLER,  
FROM REFACTORING: IMPROVING  
THE DESIGN OF EXISTING CODE

COMPUTER SCIENCE IS  
NO MORE ABOUT  
COMPUTERS THAN  
ASTRONOMY IS ABOUT  
TELESCOPES.

- EDGER W. DIJKSTRA

DEBUGGING IS  
ANTICIPATED WITH  
DISTASTE, PERFORMED  
WITH RELUCTANCE, AND  
BRAGGED ABOUT  
FOREVER.

- ANONYMOUS

DOCUMENT MY  
CODE? WHY DO  
YOU THINK THEY  
CALL IT CODE?

DON'T USE THE  
COMPUTER TO DO  
THINGS THAT CAN  
BE DONE  
EFFICIENTLY BY  
HAND.

EVERYTHING  
THAT CAN BE  
INVENTED HAS  
BEEN INVENTED.

— CHARLES H. DUELL,  
COMMISSIONER, U.S. OFFICE OF  
PATENTS, 1899

GET YOUR DATA  
STRUCTURES  
CORRECT FIRST AND  
THE REST OF THE  
PROGRAM WILL  
WRITE ITSELF.



GOOD JUDGMENT  
COMES FROM  
EXPERIENCE, AND  
EXPERIENCE COMES  
FROM BAD  
JUDGMENT.

THE BEST TASKS ARE  
THOSE THAT STUDENTS  
FIND A LITTLE TOO  
DIFFICULT TO  
COMPLETE  
COMFORTABLY.

- UNKNOWN

GOOD PROGRAMMERS  
KNOW WHAT TO WRITE.  
GREAT ONES KNOW  
WHAT TO REWRITE  
(AND REUSE).

— ERIC S. RAYMOND,  
UNOFFICIAL SPOKESPERSON FOR  
THE OPEN SOURCE MOVEMENT

THE ABILITY TO CODE  
IS THE CLOSEST  
THING WE HAVE TO A  
SUPERPOWER.

– DREW HOUSTON,  
FOUNDER OF DROPBOX

YOU DON'T HAVE TO  
BE A GENIUS TO  
CODE. DO YOU HAVE  
TO BE A GENIUS TO  
READ?

- BRONWEN GRIMES

HALF OF  
PROGRAMMING IS  
CODING. THE  
OTHER 90% IS  
DEBUGGING.

HARDWARE IS THE PART  
OF A COMPUTER SYSTEM  
THAT CAN BE KICKED AND  
SOFTWARE IS THE PART  
THAT CAN ONLY BE  
SCREAMED AT.

- UNKNOWN

HE WHO LAUGHS  
LAST PROBABLY  
MADE A BACK-  
UP.

- UNKNOWN



I FIND THAT THE  
HARDER I WORK,  
THE MORE LUCK I  
SEEM TO HAVE.

– THOMAS JEFFERSON

IF AT FIRST YOU  
DON'T SUCCEED,  
CALL IT VERSION  
1.0.

IF GM HAD KEPT UP WITH  
TECHNOLOGY LIKE THE  
COMPUTER INDUSTRY HAS,  
WE WOULD ALL BE DRIVING  
\$25 CARS THAT GOT  
1000 MPG.

- BILL GATES

IF YOU GIVE SOMEONE A  
PROGRAM, YOU WILL  
FRUSTRATE THEM FOR A  
DAY; IF YOU TEACH THEM HOW  
TO PROGRAM, YOU WILL  
FRUSTRATE THEM FOR A  
LIFETIME.

– UNKNOWN

IF YOU HAVE TOO  
MANY SPECIAL  
CASES, YOU ARE  
DOING IT WRONG.

INSIDE EVERY LARGE  
PROGRAM IS A  
SMALL PROGRAM  
STRUGGLING TO GET  
OUT.

IT IS A MISTAKE TO  
LET ANY ELECTRO-  
MECHANICAL DEVICE  
REALIZE THAT YOU  
ARE IN A HURRY.

IT'S HARD ENOUGH TO FIND  
AN ERROR IN YOUR CODE  
WHEN YOU'RE LOOKING FOR  
IT, IT'S EVEN HARDER WHEN  
YOU'VE ASSUMED YOUR CODE  
IS ERROR-FREE.

- STEVE MCCONNELL



IT'S OKAY TO GIVE  
ADVICE TO A FELLOW  
STUDENT IN  
ENGLISH, BUT NOT  
IN JAVA

KEYBOARD (N):  
INSTRUMENT USED  
TO ENTER ERRORS  
INTO A COMPUTER.

LAZINESS IS AN ESSENTIAL  
QUALITY IN A COMPUTER  
SCIENTIST. WHY ELSE WOULD  
WE WORK SO HARD TO  
FIND AN EASY WAY TO DO  
THINGS?

- KATRIN BECKER,  
THE BECKER BLOG

ANYONE WHO HAS  
NEVER MADE A  
MISTAKE HAS NEVER  
TRIED ANYTHING  
NEW.

- ALBERT EINSTEIN

MULTIPLYING BY  
0.1 IS NOT THE  
SAME AS  
DIVIDING BY 10.

FAILURE IS AN OPTION  
HERE. IF THINGS ARE  
NOT FAILING, YOU ARE  
NOT INNOVATING  
ENOUGH.

- ELON MUSK

SOFTWARE ISN'T  
RELEASED, IT'S  
ALLOWED TO  
ESCAPE.

- UNKNOWN

TESTING CAN SHOW  
THE PRESENCE OF  
BUGS, BUT NOT  
THEIR ABSENCE.



TO UNDERSTAND  
RECURSION, YOU  
MUST FIRST  
UNDERSTAND  
RECURSION.

THE BEST WAY TO  
PREDICT THE  
FUTURE IS TO  
INVENT IT.

— ALAN KAY

THE CHEAPEST, FASTEST,  
AND MOST RELIABLE  
COMPONENTS OF A  
COMPUTER SYSTEM ARE  
THOSE THAT AREN'T  
THERE.

THE FASTEST ALGORITHM  
CAN FREQUENTLY BE  
REPLACED BY ONE THAT  
IS ALMOST AS FAST AND  
MUCH EASIER TO  
UNDERSTAND.

THE FIRST STEP IN  
FIXING A BROKEN  
PROGRAM IS  
GETTING IT TO FAIL  
REPEATEDLY.

THE ONLY WAY TO  
LEARN A NEW  
PROGRAMMING  
LANGUAGE IS BY  
WRITING PROGRAMS  
IN IT.

- BRIAN KERNAIGHAN &  
DENNIS RITCHIE

THE SOONER YOU  
START TO CODE,  
THE LONGER THE  
PROGRAM WILL  
TAKE.

-ROY CARLSON

THERE ARE 10 TYPES  
OF PEOPLE IN THE  
WORLD, THOSE WHO  
UNDERSTAND BINATRY  
AND THOSE WHO DON'T.



IF ALL OUR TECHNOLOGY IS  
CREATED BY THE SAME PEOPLE,  
THEN OUR SOLUTIONS WILL BE  
LIMITED AND THEY WILL SERVE  
ONLY THOSE PEOPLE. DIVERSE  
BACKGROUNDS YIELD DIVERSE  
MINDS WHICH YIELD DIVERSE  
SOLUTIONS.

- JUAN GILBERT

THERE ARE TWO WAYS  
TO WRITE ERROR-  
FREE PROGRAMS,  
BUT ONLY THE THIRD  
ONE WORKS.

- ALAN J. PERLIS

THERE IS NO REASON  
ANYONE WOULD WANT  
A COMPUTER IN  
THEIR HOME.

— KEN OLSEN,  
FOUNDER AND PRESIDENT,  
DIGITAL EQUIPMENT  
CORPORATION, 1977

THERE'S  
ALWAYS ONE  
MORE BUG.

— LUBATSHKY'S LAW OF  
CYBERNETIC ENTOMOLOGY

TO EITZ IS HUMAN,  
BUT TO REALLY  
FOUL THINGS UP YOU  
NEED A COMPUTER.

- PAUL EITZLICH

YOU CAN HELP YOUR  
NEIGHBOR WITH  
YOUR MOUTH, BUT  
HANDS OFF THEIR  
MOUTH!

WEEKS OF  
PROGRAMMING  
CAN SAVE YOU  
HOURS OF  
PLANNING.

— ANONYMOUS

WHEN SOMEONE  
THROWS A \$100  
BILL AT YOU,  
DON'T DUCK

- MARIE ROBINSON



WHY DO  
PROGRAMMERS  
CONFUSE HALLOWEEN  
AND CHRISTMAS?

31 OCT = 25 DEC

USER, N. THE WORD  
COMPUTER  
PROFESSIONALS USE  
WHEN THEY MEAN  
"IDIOT."

- DAVE BARTZ

PROGRAMS MUST BE  
WRITTEN FOR PEOPLE  
TO READ, AND ONLY  
INCIDENTALLY FOR  
MACHINES TO EXECUTE.

- HAL ABELSON &  
GERALD JAY SUSSMAN

ART IS NEVER  
FINISHED, ONLY  
ABANDONED.

- LEONARDO DA VINCI,  
ANTICIPATING SOFTWARE  
BY FOUR CENTURIES (?)

RULES FOR  
OPTIMIZATION: 1.  
DON'T DO IT. 2. (FOR  
EXPERTS ONLY)  
DON'T DO IT YET.

- MICHAEL A. JACKSON

THE DIFFERENCE  
BETWEEN THEORY AND  
PRACTICE IS SMALLER  
IN THEORY THAN IN  
PRACTICE.

- ANONYMOUS

AS SOON AS YOU AGREE  
ON THE NUMBER OF  
SPACES FOR  
INDENTATION, NO-ONE  
ARGUES FOR TABS.

- ALVAR LUMBERG

...THE GREAT DOESN'T  
HAPPEN THROUGH  
IMPULSE ALONE, AND IS A  
SUCCESSION OF LITTLE  
THINGS THAT ARE  
BROUGHT TOGETHER.

— VINCENT VAN GOGH



WHEN DEBUGGING,  
NOVICES INSERT  
CORRECTIVE CODE;  
EXPERTS REMOVE  
DEFECTIVE CODE.

- RICHARD PATTIS

MULTI-THREADING IS  
THE ART OF SCREWING  
THINGS UP BEFORE,  
DURING, OR AFTER  
SOMETHING ELSE.

- ANONYMOUS

SOME PEOPLE, WHEN  
CONFRONTED WITH A  
PROBLEM, THINK "I KNOW,  
I'LL USE REGULAR  
EXPRESSIONS." NOW THEY  
HAVE TWO PROBLEMS.

- JAMIE ZAWINSKI

IN CASE OF  
FIRE:

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$ git commit -a
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$ git push
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- THANKS TO RIA GALANOS