

# Life of a Software Engineer

---

Kurt Alfred Kluever  
Software Engineer  
kak@google.com

# *Computer science is...*

the study of the theoretical foundations of information and computation, and of practical techniques for their implementation and application in computer systems.

# *Software engineering is...*

a profession dedicated to designing, implementing, and modifying software so that it is of higher quality, more affordable, maintainable, and faster to build.

# *Software engineering is not...*

a profession where you work alone in front  
of a computer for 10 hours a day.



*"Computer science is no more about computers than astronomy is about telescopes."*

**-Edsger W. Dijkstra**



How many lines of "production" code does the average software engineer write per day?

---



How many lines of "production" code does the average software engineer write per day?

---

Only between 10 and 20!!!

So, if you don't  
write code all day,  
what *do* you do?

---





So, if you don't  
write code all day,  
what *do* you do?

---

Solve Problems!

code  
maintenance

understanding  
existing code

team meetings

working with clients

bugs

whiteboarding

writing new  
code

email

code reviews

documentation

testing

design reviews

deployment

monitoring

Patience

Science

Curiosity

Math

Enjoys being  
challenged

Self driven

Communication Skills

Organized

# Why Computer Science?

- Impact millions of people
- Create something new
- Open source development
- Flexible hours and "WFH"
- It's fun and challenging
- Rewarding

# The basics of CS

---



## Algorithms

Set of steps used to solve a problem

## Data structures

How data is stored and organized in memory

## Complexity

How "fast" the algorithm runs

---

Thank you!

Questions?

Google