

```
mp_array[a], c) && (
mp_array[a], use_wyst
.length - 1].b, inp_
rse()); b = m(a, " ")
void 0); -1 < b && a
& a.splice(b, 1); re
place(RegExp(".", "g
for (var c = 0, d =
+; } return c; } fun
= 0; d < a.length; d+
} } return c; } fun
= 1; "-" === a[0]
```

Software Engineering Careers

Understanding what the software industry has to offer so you get career you deserve



by **Shane O'Sullivan**

Hi there!

- I'm Shane O'Sullivan
- Graduated from Computer Systems at UL in 2001 and with a Masters in Robotics in 2003
- 10 years in Silicon Valley at Facebook, Stripe & others
- Engineer & senior management

What is a career in Software Engineering?



Passive Careers

Predictable

- Work 9am - 6pm
- Do tasks you're given

OK Compensation

- Small raises & bonuses
- Work until you're 66
- Retire comfortably
- No ownership

Low Stress

- Your nights & weekends are free
- No need to be "great"

Active Careers

Self Driven

- Set goals & plan to meet them
- Learn for the fun of it
- Develop your career

High Compensation

- Ownership in your employer (shares)
- Possibly make many €Ms

Higher Risk & Stress

- Could end up with much less
- Can be hard work

Passive Career Advice .

Focus on soft skills

- Practice presenting. Senior management need to know your name
- Get good at documentation and emails. Take courses.
- Lead meetings

Passive Career Advice ..

Always look for a better job

- Loyalty is punished, not rewarded
- Get 5 years of raises each time you move company

Passive Career Advice ...

Build your public reputation

- Go to conferences (get your company to pay)
- Publish online - blog, LinkedIn, whatever
- Do talks at local tech events

Passive Career Advice

Get really good at a niche technology

- Companies can pay well for experts in boring technology
- E.g. COBOL - most engineers are retired
- If you don't care about the work....

Active Careers .

○ Hack your career

Treat your career like a program you're writing.

Understand how to improve it, plan and execute

○ More stressful

Long nights & weekends

Startups often fail, so high risk of getting nothing

○ Requires High Compensation

Only work this hard for great pay.

Only work at companies that pay in stock.

Active Careers ..

No one gets rich on a salary

Company Types (that pay in stock)

○ Large companies
e.g. Google, Facebook, Stripe

○ Mid Size companies
300 - 1500 people or so

○ Small startups
< 50 people

Large Tech Companies +.



Hire graduates

No experience needed.



Forced growth

Improve or get fired, you'll be surrounded by competent people



Culture of coaching

Senior engineers & managers are required to improve those more junior



Pay well in stock & cash

Earn a living wage in cash

Tech lead of 6 person team can make over €500K, seniors over €1M per year

Large Tech Companies +..

○ Large complex projects

Nerdy fun

Move around internally to keep it interesting

○ Build a great professional network

Hire them when you start your own company

Have them hire you after they move away

○ Low (ish) risk

Business model is proven


Large Tech Companies -



Small fish, big pond

Could work on boring legacy tech

Fixing other people's bugs



Bad managers

A bad manager can derail your career

What Large Tech Companies Want

○ From new grads - intelligence, grasp of fundamentals

○ Practice interviewing

It's a skill to improve like any other

○ From experienced engineers, strong depth

Be a good generalist, with depth in one or two areas, like AI or performance

Mid Sized Tech Companies .

Usually pre-IPO

Higher risk than large companies. Your stock might never be worth anything.

Higher potential reward

Not uncommon for your stock to 5x or 10x by IPO

Less stability / Learn more

You'll be moved around teams as company needs change

Need to learn new languages & technologies fast

Mid Sized Tech Companies ..

○ No coaching or guidance on career

Promotions & bonuses can be ad-hoc, based on relationship with your manager

○ More room for you to shine

Less likely to be pigeonholed into a defined role

Great for talented junior developers to rise quickly

○ Forced to learn more than coding

Documentation, customer support, data analysis, product design.....

What Mid Sized Tech Companies Want

○ Strong generalists

Show that you know multiple languages and tech stacks

○ Comfort working with other peoples code

Contributing to multiple Open Source projects is a positive

Get good at debugging other people's code

○ Culture fit

Before interviewing, learn about the company, have a strong reason to work there

Small Startups .

High Risk/Reward

90% of startups fail

Can be like a lottery

Founder led

Heavily dependent on founders

Unproven business

May pivot multiple times. This is OK.

Small Startups +.

○ Belief in the product

○ Fun technical challenges

No legacy code!

○ Good team dynamics

You know everyone, highly collaborative

Small Startups +..

○ Learn how to build your own company

Meet investors & customers

How to find product/market fit

Build demos & productise them

○ Make lots of money

If all goes well....

Small Startups -.

○ Lower wages

Barely livable wages even if you have no dependents

○ Work hard. Then harder.

○ Immature leadership

Founders can be brilliant but emotionally infantile/dishonest

Small Startups -..

○ Hype cycles

Crypto, AI, FinTech....

Is the idea viable or did they get easy money for something crap?

○ Mostly US based

Visas can be tricky

Before Joining a Small Startup

○ Understand what you're giving up

You'll have less of

Friends, partner, kids, exercise, travel, money....

○ Get to know the founders

Talk to lead investors, get founder's references

○ Understand the equity you're offered

Options vs RSUs, ISO vs NSO, vest schedule etc

Work Life Balance



Different for everyone

Make it what makes you happy.



Lean into work early in your career

Much easier than when you have commitments

Makes later career much more lucrative & easier

Hype Cycles .

2000

Dot-com bust

2008 - 2016

Social media

2017-2022

Bitcoin/Crypto

2016-2021

FinTech

2020-

Climate & Electrification

2022-

AI

Hype Cycles ..

○ Don't be a zealot

○ Your work is not your personality

○ Be prepared for the hype & funding to go away

Grow useful skills that apply to other fields.

Habits of a Successful Software Engineer

① Great team players

Mentor junior engineers

Build tools to speed up everyone

Write thoughtful code reviews

② Curious

Not judgemental

③ Growth mindset

Seek out mentors no matter how senior you are

④ Work on what you enjoy

Have fun out there!