

How to become a software developer

Mainly focusing on becoming web developer/app developer

By Owais Ali

A dark blue diagonal gradient bar that starts from the bottom left and extends towards the top right, covering the lower half of the page.

About Me

Medium: <https://ows-ali.medium.com>

Youtube: <https://youtube.com/@owaisali124>

Github: <https://github.com/ows-ali>

LinkedIn: <https://www.linkedin.com/in/ows-ali/>

6 years of software engineering experience

I have worked on:

Backend: Node, PHP, Python, Nest, Mysql, Postgres, Firebase

Frontend: React (Class+functional), Redux toolkit, Typescript, Next, Bootstrap, Material, Tailwind CSS, Chakra UI, JQuery

Testing (unit): React Testing Library, Jest

Testing (e2e): Playwright, Cypress, Selenium

Mobile: React Native, Realm, Native Modules

Cloud: AWS (S3, IAM, RDS, EC2, KMS, CloudFormation, CodeBuild, CodeDeploy etc), Docker, Kubernetes, Heroku, Render, Netlify, Firebase

I have worked on onsite, remote and hybrid settings

Please subscribe my Youtube Channel

(More content will be uploaded in English as well)

My wish is to create content that should be enough to help you land your first job in IT sector

The tech stack I am teaching:

- NextJS 13 Frontend+Backend
- React
- Node
- Neon Database (May introduce something else)
- Tailwind CSS, Chakra, Bootstrap

Soon, I will also add content to become a blockchain developer

Only secret to become a software developer

You have to be a **self taught developer**

Then what about university degrees, bootcamps, diplomas, etc? **See next slide**

Dark reality about coding programs all over the world

None of these can make you a developer:

- Free bootcamps
- Paid bootcamps
- Online course (Youtube, Udemy, Coursera etc)
- Diplomas
- University degrees (Be it FAST, COMSATS or any other top university of Pakistan or abroad)
- or anything else you can think of

In every case, only a few students will become developers and many of them will not become a developer.

They teach everybody in class same content. They can only help 10 to 20% or 40% max, rest is your own efforts

They just let you know what you need to learn, in fact they may not teach you all of that for any xyz reason (time shortage, less assignments done overall, expertise missing etc)

3 things that you need to work on as a software developer

1. Internet/Google Searching **smart** skills

How to Search and What to copy without plagiarism

You need to enable yourself to follow beginner friendly coding sites like w3schools, tutorialspoint etc for html, css, js, ts, etc

I would not highly recommend ChatGPT, because people start copying full code. But you can do that on Google as well. So you have to be aware, that you are allowed to take bits and pieces but not full code

Caveat:

Not all documentation are for you at the beginning, specially sometimes official React and Next documentation

Note: When you feel comfortable with w3schools, and/or tutorialspoint, it may be a signal that you are ready for job

You should also be able to follow tutorials from sites like Medium and/or copy code wisely from sites like **StackOverflow**

3 things that you need to work on as a software developer

2. English

What is required

You should be comfortable enough to read and listen, speaking is last priority. No accent or fluency needed. tutorials/articles/documentation and watch tutorials in English/with subtitles. You can talk with native and non native speakers

How to improve

Start watching movies in English with subtitles that you have already watched like Harry Potter, Spider man, etc (no books or newspapers necessary)

Movies (must watch either subtitled, dubbed is also allowed for these):

- Social Network (Mark Zuckerberg)
- Pirates of the Silicon Valley (Steve Jobs and Bill Gates story)

You can watch seasons:

- Friends (comedy, my favorite season)
- Seinfeld (comedy)
- Silicon Valley (Tech season)
- Mr Robot (hacker story)

You can also try contributing by answering on stackoverflow (it's little difficult), Quora (it's easy)

Reference:

<https://www.geeksforgeeks.org/best-tech-movies-that-every-programmer-must-watch/>

3 things that you need to work on as a software developer

3. Coding

Which you already focus as number 1 priority

Please notice that coding is just 1/3rd component for a software developer

Also, note that you work on these things in parallel.

And also note that, it goes on and on always even if you become mid level or senior developer

Difference between coders and programmers

Coders are able to do what we are taught, shown in the tutorials, which is fine as a beginner (less creative)

We want to become programmers, where we will think of solutions, how to build something, write algorithms, select technologies like stack for backend/frontend, db, ui etc

They can think of more than one (coding) solution for a problem

Reference link:

Coder vs Programmer:

<https://www.youtube.com/watch?v=7Gq7dv3VC30>

How to become a programmer (Very important)

How to become programmer:

Practice computational problem solving questions start from easy sites like Freecodecamp, codecademy etc and then move to Hackerrank, LeetCode, Codeforces, Codewars etc

You should also do some certificates/exercises (with 100% completion highly recommended) for computational problem solving, OOP, SQL, etc

My Freecodecamp JS algo video:

https://www.youtube.com/watch?v=o2uV052OaJM&list=PLWVQtay0_ZbCBdpVWKx-uagZjYcmpVo-o&index=6

Exercism Typescript questions:

<https://exercism.org/tracks/typescript/exercises>

You should able to solve easy and medium difficulty questions on Leet Code and Hackerrank etc, if you want to get a job in a local good company. If you want a remote job, or job in FAANG/MAANG companies then do solve Hard difficulty questions as well.

Motivational video: Aram haram hai by Shahrukh Khan

<https://www.youtube.com/watch?v=VCy6o6WPgu8>

Free/Cheap/Pay after placement programs

(Select any one as primary target)

- [Microverse](#)-Pair programming

Pay \$0 until you start earning \$1000/month

- [Codecademy](#) (Career path is paid but individual skill courses are free)

Price: \$24 per month

- [FreeCodeCamp](#)-MERN-Text based-World's most famous-6 months program roughly

Completely free, self faced, become full stack developer

- [Coursera](#)-Many courses-Recommended Frontend or Backend specialization by Meta with Job guidance

Paid, but 100% scholarship available for Pakistanis

<https://www.coursera.org/professional-certificates/meta-front-end-developer>

Free/Cheap/Pay after placement programs

(Select any one as primary target)

- [Scaler](#)-by Indians from
FAANG-Basic/intermediate/advanced

Free for now, and available in Pakistan for now

Doubt sessions on text/video call

Can pause for one month if family commitment

- [OdinProject](#)-JS/Node, RoR

Free

Learn with others and get guidance from experienced
devs

- [Exercism](#)-Text based

67 languages to master

Free

Also ask a mentor to review your code for free 🙄

What are our weaknesses/disadvantages

We are a Pakistani:

We have issues of electricity/gas load shedding, roads are pathetic, political

Guidance/Mentorship issue

Not many Pakistani Youtubers are out there

There is more poverty, inflation and unemployment expected in near future

Reference for fun: Laga Reh song by Shehzad Roy
<https://www.youtube.com/watch?v=DXesOFA8e0E>

What are our strengths/advantages

We are a Pakistani:

1. We have similar language as that of Indians
 - We need to watch courses on youtube
 - Even enrol in their paid courses, they even offer guaranteed placements programs
 - Don't worry that you will be sending PKR to India, you have to celebrate you reserved a seat there and created value for long term from them
 - Ideally, please share the course with me before purchasing
2. We get discounts on various platforms, like coursera 100% scholarship
3. There are Pakistani Youtubers to follow: Clever Programmer (1M+ subscribers, also teach web3), [Ahmed Awais](#), [Ehmad Zubair](#), [Ahsan Ayaz](#) (GDE in Angular), etc (There are many more GDEs in Pakistan)
Top hacker: <https://www.linkedin.com/in/rafaybaloch>
4. It is predicted, there is a lot of potential, and more tech talent is coming from Pakistan

Reference:

Meta frontend course (includes React, Git, Interview preparation):

<https://www.coursera.org/professional-certificates/meta-front-end-developer>

Pros and Cons of the program we are enrolled currently

Pros:

- Latest tech stacks like Typescript, Next, Neon, Chakra
- Will be useful in coming years, jobs will only grow in the future
- You become eligible and can apply for backend developer, frontend developer, full stack developer, UI/UX designer, blockchain developer and few more roles (but please focus on one or two only so you can build portfolio)

Pros and Cons of the program we are enrolled currently

Cons

Repo is not beginner-friendly. It has links to other articles or youtube videos (more unfortunately English youtube videos)

If you are not able to participate in any of the following, you are still fine. Just FYI, I am not a part of any of these.

- Military academy
- Ninja Card

You just take them as motivation and prepare yourself for them. Gradually, you will be eligible as well :)

Not everything is super necessary, like if you want to work as a web developer then these are not mandatory

- Book writing
- Rive
- Figma

Don't worry about speed, just keep doing on routine basis.

Common excuses that people make

Comparing with others

Complaining others are ahead of us

Complaining we have full time job

Complaining we are housewives

Thinking we are just child, or too beginners

We are from different field

Only one SOLUTION of all the above issues in one quote:

"If you want to do something, either you'll find a way to do it, or you will find an excuse"

Common mistakes after learning a skill

Don't prepare for interview. They get called for interview, but didn't know that they ask OOP, coding questions on paper/board, take home assignments etc

Don't seek mentorship (You should have someone to get 1:1 mentorship who have done something already that you want to do). There are many mentors available that do paid consultancy and sometimes free as well. (See next slide)

Don't create products for public use (paid or free). It is very likely that it may fail but do give it a shot, you may succeed as well. You can sell themes on Themeforest, designs on dribbble. (P.S you can also sell photographs or other art on internet)

Don't create online resume site (you can create for free)

Don't upload the code on Github. Or don't deploy the code and share url in Github About section and on resume site

Don't apply to jobs much, don't apply properly, don't go for interviews for fear of rejection (I might give a session later on how to get a job if you ask)

Ok, done with coding. What about job vs freelancing

When you are done with a coding/learning journey as a beginner you can join companies as an intern/software engineer

Usually you don't start as a freelancer directly (sometimes you do), but a few years job experience is recommended

If you have a good portfolio, you will join a good company and vice versa. But your previous education background and luck also plays an important role

Your first job or first few jobs are not the end. You start from low paying jobs, or in small companies. But you can still keep learning and switch jobs to good companies and even FAANG companies as well

Shafiqah Iqbal from Sadiqabad Tehsil, Rahimyar Khan District:

<https://www.youtube.com/watch?v=Y9wSA5PW8tI>

Earning/Salaries in Pakistan

You may earn 0 in the beginning.

I am not confirmed, but websites report more salaries than actual on the internet for Pakistani companies and so not easily trustable (because not many people reported their salaries)

The best estimate is of Payscale, according to payscale average **yearly** salary of entry level software engineer is **PKR 690000**

https://www.payscale.com/research/PK/Job=Software_Engineer/Salary/70d499a9/Entry-Level

Roughly, developers can take PKR 40k to PKR 1 lac+ on entry level but it depends upon multiple factors:

- If your preparation in coding, your portfolio,
- your certifications are good enough
- if you are a graduate
- If you are a graduate from good university
- If the company pays good
- Luck is also a factor

(I can create another video on the life after getting first job later 😊)

How to be your own boss?

(Startups and Entrepreneurship and Software Houses)

Usman Asif, CEO Devsinc, FAST, From Rahim Yar Khan, low GPA, Lahore

https://www.youtube.com/watch?v=-G_WG4xjHEg

Qasim Asad Salam: CEO RemoteBase, started an application in university which went viral and went to Silicon Valley, and created RemoteBase from 0

https://www.youtube.com/watch?v=2t_DKdVqR00

Hassaan Khan: CEO Trax, IBA Karachi, started companies with friends initially but failed first

<https://www.youtube.com/watch?v=843xUzBdEnA>

Salim Ghauri, Founder Netsol, how he got into computers, and how he left job and created NETSOL

<https://www.youtube.com/watch?v=ot201sV7wiE>

Raza Saeed, building IT firms from scratch

<https://www.youtube.com/watch?v=1a9cDenQMoE>

Career Counseling/Mentor ship problem solved

1. **Zeeshan Usmani** (Kaggle Grandmaster, very highly expert in AI and blockchain)

Profile: <https://www.linkedin.com/in/zusmani/>

Fees: \$27-\$70 fees

Booking link:

<https://mentoga.com/Booking/Zeeshan-ul-hassan-Usmani-3261>

2. **Wajahat Karim** (Google Developer Expert in Android, from Karachi)

Profile: <https://www.linkedin.com/in/wajahatkarim/>

Fees: free-\$10 to \$20

Booking link: <https://topmate.io/wajahatkarim>

3. **Ahmed Awais** (Google Developer Expert, NodeJS contributor, WordPress contributor, from Multan)

Profile: <https://ahmadawais.com/>

DM: <https://twitter.com/MrAhmadAwais/>

Career Counseling/Mentor ship

Contact me

4. Owais Ali

Booking link: <https://calendly.com/owaisali/30min>

You can email me at owaisali.cs@gmail.com if this link is not working or you cannot find a suitable slot

Also, check the description if I have updated my booking link

Initially, it is free I may charge something later in future

Key Takeaways

Try to earn certificates online as much as possible

Learn from Indians

Do problem solving courses

Prepare SQL course, OOP course for interview

Create projects, upload them on Github, deploy and mention the live url

Create a portfolio site and keep it updated

Failing in interview rounds is inevitable and is way too common than you think. So just keep applying like crazy while working on skills and weaknesses

Keep giving interviews, usually there are 2 to 5 rounds of interviews for a job so you will get a lot of experience even if you fail. Do go for interview for the places where you don't want to go, so you don't have fear of not getting the job

Start Microverse, FCC, Indian programs etc and keep in touch with me to verify if you are in right direction