A Webinar on "The IT Starter Pack"

- Rahul Jain, Karuna K B

1. Data structures and Algorithms

O Just Kidding, we're not gonna do that.

Technological Shift over last few Years...

- Frameworks
- Cross Platform Development
- O PWA Progressive Web Apps
- SaaS
- O Bots
- Mobile Apps
- O NoSQL

AI? What it is and how it affects IT....

- Al Is the name justified?
- O Data is the new Oil
- O How Data drives Al
- Al Bias
- O Where is AI on a scale of Human Intelligence

Data

- Over 3.5 Billion Google searches are conducted worldwide each minute of everyday. That is **2 trillion searches per year** worldwide. That is over 40,000 search queries per second!
- Every minute on Facebook: 510,000 comments are posted, 293,000 statuses are updated, and 136,000 photos are uploaded.
- In 2019, users are watching 4,333,560 videos every minute.
- And that's from 2019! With lockdowns in place and the world moving ever more online, the scale is now even larger.
- Ads and user profile data are key commodities on world market.

Artificial intelligence

- O Data shows patterns
- O All Al really is, is pattern recognition and pattern prediction
 - Machine learning applications
- The true AI: Artificial General Intelligence.
- O Today's Als are too specific to tasks.

Cloud and Opportunities...

- O Cloud ?
- O laaS Infrastructure as a Service
- O CI/CD, Docker, Kubernetes and Git
- Scalability
- O High Reliability, low Liability

Opportunities in IT amidst & post pandemic

- Covid-19 / Corona (NO! Not karuna :P)
- O lot in consumer health sector
- Remote work
- Trend shift / realization of opportunities by Big players
- Small businesses going online
- Contactless services and e-commerce.

Hobby Projects and their importance

- Creativity
- Ownership
- Better understanding of platforms
- Continuous learning
- Proof of excellence
- Competitive Coding
- Community driven development

Understanding IP laws

- What is IP ? (NOT IP Address)
- O How to distribute IP?
- Copyright vs Copyleft (Yes, there is such a thing!)
- O Licenses
- Platforms and Ownership

IP Distributions

- O Patents
- Copyrights
- Trademarks

Copyright vs Copyleft

- Copyright
- Copyleft

Licenses

- O A permission for use or ownership of an Intellectual Property.
- Examples:
 - O MIT
 - O GPL
 - O Apache License 2.0
 - O BSD
 - O Lots and lots of others.

Platforms and Ownership

- OS Platforms
 - o ios
 - Android
 - Compare the second of the s
 - Windows
 - MacOS
- Application Distribution Platforms
 - O App Store
 - Windows Marketplace
 - O Play store

Perks & responsibilities of an SE

- Information Security
- Networking opportunities
- Awareness of technologies
- Contributions to the goal of the team / Organization / Community
- Personal growth
- Ethics in software (Ex: Saying "NO!" to every cousin/friend asking you to hack Facebook)

Information Security

- Learn about security practices in a corporate security
 - Layers of access
 - Grouping of resources
 - Individual identity management
- Data management and protections in place
 - Redundancies to prevent data loss
 - O Drills to prepare for emergency situations leading to data loss or corruptions
 - Accountability

Networking Opportunities

- To make official connections with various teams and notable individuals in the corporation.
- Opening up newer avenues for career growth
- Opportunity to invest in innovations happening in the industry

Contributions towards a vision

- O Being a part of the implementation of vision of a company.
- A sense of accomplishment
- Witnessing the fruits of your labor in action

Personal growth

- From novice to professional.
- O Grasp of real-world development.
- O Growth in collaboration skills.

Ethics in software

- Software is a tool
- O Being responsible in development
- O A software engineer's responsibility towards ethical use of systems
- Saying NO

The real deal!

Okay, Sleepy heads. Wake up now! We need to talk.

Are IT jobs really future-proof (JOB SECURITY)

- O Yes, but No.
- Rise of remote roles Pros and Cons
- Corporate reactions to market (Lay-Offs, Benching)
- Paid Community contributors
- Market Volatility
- Product vs Service
- Recession and Rejection (more on this in the next slide)

Interviews...



Sebastián Ramírez

@tiangolo

I saw a job post the other day. 🚺

It required 4+ years of experience in FastAPI. 2

I couldn't apply as I only have 1.5+ years of experience since I created that thing.

Maybe it's time to re-evaluate that "years of experience = skill level". ❖

7:10 PM · 11 Jul 20 · Twitter Web App

47.7K Retweets and comments **177K** Likes

- Interviews in a Nutshell using the Interstellar Example
- Unrealistic Expectations FastAPL
- O How much do grades matter?

(SPOILER ALERT: Not as much as you think!)

O Choose your first job wisely!



Jens Ravens @JensRavens · 12 Jul

Ok, here's the full story. About 2 years ago My dev agency contacted by a big tech company in Berlin if we could help them with performance issues in their iOS app. I replied "yes" and somehow was redirected from the tech group to a recruiter "for screening". Was quite absurd.

Q

1 46

 \bigcirc 83

≪



Jens Ravens @JensRavens · 12 Jul

The next day I got an appointment for a call and while I expected questions about contracting and payment modalities, they started asking me (extremely outdated) iOS questions.

 \bigcirc

13 13

♡ 619

8



Jens Ravens @JensRavens · 12 Jul

I had a lot of fun explaining him on the phone why an integer overflow doesn't happen at his "correct answer" because you know - we transitioned to 64 bit like 5 years ago. Then the amusing part:

 \circ

↑7 15

 \bigcirc 6

≪



Jens Ravens @JensRavens · 12 Jul

"Explain me how to cancel a subscription in Interstellar."

"There is no need to cancel it. The whole point of this library is that subscriptions cancel themselves when the retaining object gets deallocated" "No, this is not correct"

Q

12

♡ 743

α



Jens Ravens @JensRavens · 12 Jul

I asked about the correct answer and got told that this would not be part of the process. I thanked him for his time and never responded again to emails from that company. Probably now I'm recorded in their files as difficult.

Q 16

1 18



Dealing with Rejection/Recession

- Job hunting and associated risks (scams, delays, contracts, frauds)
- O How to not lose your mind if you don't graduate with offers in hand?
- Other available options.
- Mental stress that job hunt puts on you.
- O How to deal with layoffs?
- O How to deal with being benched?

What should you know if you want to land a job in the software industry?

- O Data Structures
- O Logic building / Problem Solving
- Algorithm writing
- Competitive Coding
- O OOPS!

Questions Please!

Ask away, because....

HE WHO ASKS A QUESTION REMAINS A FOOL FOR FIVE MINUTES.

HE WHO DOES NOT ASK REMAINS A FOOL FOREVER.

Want to connect?

- O Rahul Jain | rjain.rahul5@gmail.com | LinkedIn
- O Karuna K B | hereiskkb@gmail.com | <u>LinkedIn</u>

OK, Bye.

O Thanks for listening!