

A Webinar on “The IT Starter Pack”

- Rahul Jain, Karuna K B

1. Data structures and Algorithms

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

Technological Shift over last few Years...

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

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

- AI – Is the name justified?
- Data is the new Oil
- How Data drives AI
- AI Bias
- 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

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

Cloud and Opportunities...

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

Opportunities in IT amidst & post pandemic

- Covid-19 / Corona (NO! Not karuna :P)
- IoT 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)
- How to distribute IP?
- Copyright vs Copyleft (Yes, there is such a thing!)
- Licenses
- Platforms and Ownership

IP Distributions

- Patents
- Copyrights
- Trademarks

Copyright vs Copyleft

- Copyright
- Copyleft

Licenses

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

Platforms and Ownership

- OS Platforms
 - iOS
 - Android
 - Linux
 - Windows
 - MacOS
- Application Distribution Platforms
 - App Store
 - Windows Marketplace
 - 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
 - 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

- 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.
- Grasp of real-world development.
- Growth in collaboration skills.

Ethics in software

- Software is a tool
- Being responsible in development
- 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)

- 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...

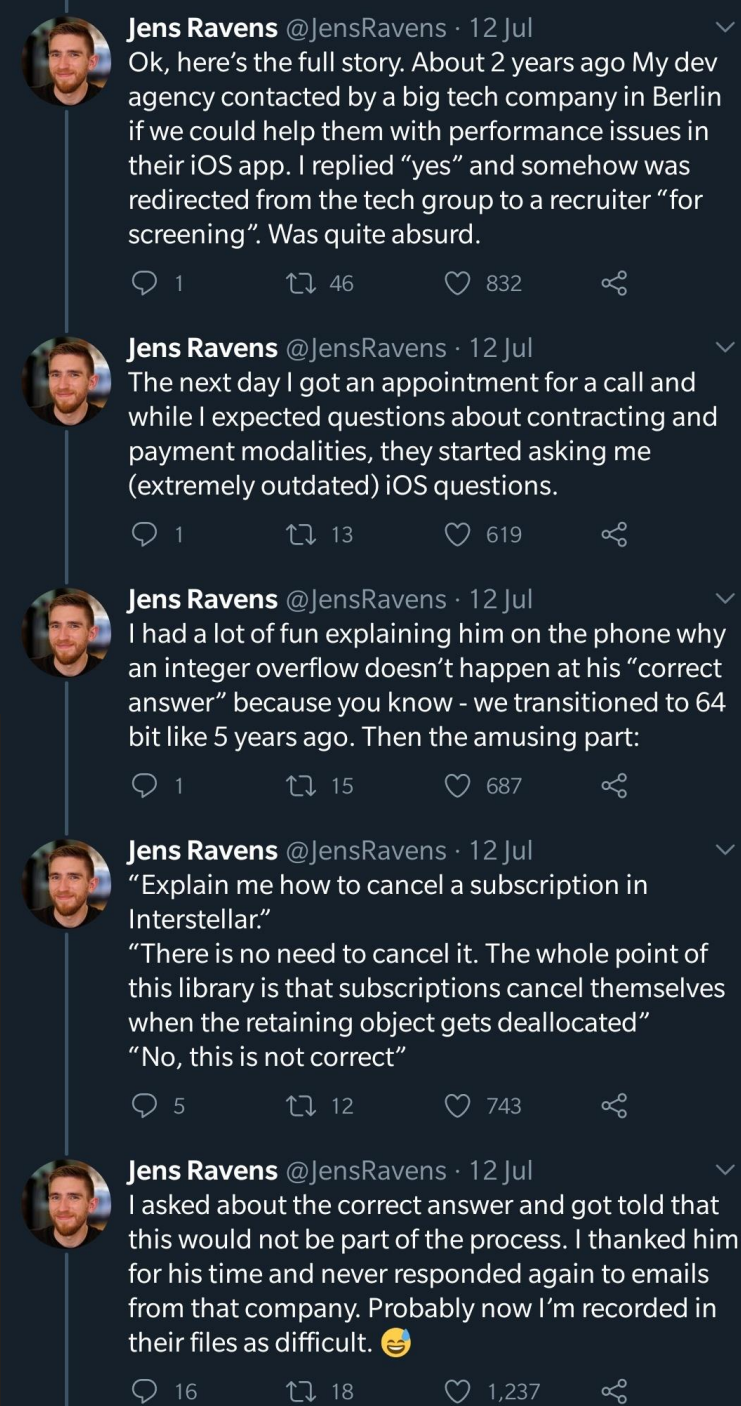
- Interviews in a Nutshell using the Interstellar Example

- Unrealistic Expectations - FastAPI

- How much do grades matter?

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

- Choose your first job wisely!



Dealing with Rejection/Recession

- Job hunting and associated risks (scams, delays, contracts, frauds)
- 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.
- How to deal with layoffs?
- How to deal with being benched?

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

- Data Structures
- Logic building / Problem Solving
- Algorithm writing
- Competitive Coding
- 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?

- Rahul Jain | rjain.rahul5@gmail.com | [LinkedIn](#)
- Karuna K B | hereiskkb@gmail.com | [LinkedIn](#)

OK, Bye.

- Thanks for listening!

Hakuna matata.