CODEX

Codex Newsletter

SEPTEMBER 15, 2021

WORDS OF THE EXPERIENCED :

Adarsh Padhi

Batch of 2022, ITER

Current role: SDE Associate Trainee, TEKsystems

Q: How did you prepare yourself for final year placements? How would you rate your experience?

There was nothing special that I adopted for the final year placements. It's not a one day thing rather the skills and knowledge you acquire over the years. Start preparing early with platforms like Geeks for Geeks and LeetCode, It will certainly give you an edge.

Q: How were the initial years of your college life? Which year do you think has the most significance?

The initial years were quite chilled and lively. I explored various domains throughout the second year which aided me in selecting my area of interest. I think every year has its role but from a career perspective, I think the third year is absolutely important.

Q: How should one prepare to be successful in the field of engineering? Any strategies for 1st, 2nd and 3rd year respectively that can aid to the cause?

Engineering is all about facing challenges and exploring new things. The first two years are comparatively less hectic and if you are curious about something, they are your safe bet. From third year, deeply focus on your curriculum because technical interviews are basically based on the subjects you study in that year.

Q: How far do you think college plays a role in preparing a student for industry and job situations? Are internships essential for the scope of industrial exposure?

College plays a huge role of course, it will provide you with every strategy and tips required for placements. There will be many companies that will come during the campus drive and you'll be

facing frequent tests and interviews. So, chances will be enough no matter what, hence ultimately it comes down to you at the end of the day.

Q: How to maintain a balance between our college study and self-learning? Which subjects or topics from the curriculum should be given more focus?

I would suggest to confine all your tech-stack explorations to the first two years. The subjects in the third year must not be overlooked. Topics like DBMS, Operating-Systems, Computer Networkings, Data-Structures & Algorithms are the bare minimums for any technical interview, so they should be focused upon.

Q: Does learning new technologies or contributing to open source have any significance or we should rather only focus on our academics?

Everything has a significance and when it comes to open-source contribution, it is obviously a great experience and skill to have. You can do anything that excites you as long as it doesn't hamper your academics. Don't get too involved with them and if you are already in third year, prioritize your curriculum over any external source.

Q:How important and necessary is competitive coding for placements and job interviews?

Competitive Coding is never a necessary criteria for placements or interviews. If you have time and you like competitive coding- Go for it, it will obviously help. But, it is not something that is essentially required. You can easily nail your interviews without them, just always develop and carry a problem-solving attitude and be strong with Data Structures and Algorithms.

-**By Anushka Rath(2019-23) and Deb Aarsh Sahu(2019-23)**

TRENDING TECH :

Everyone is familiar with the Big Shot tech domains like AI, Cloud, CyberSecurity, Data Science, Software Dev, Web Dev, UI/UX Design and the list trails on. Here we bring to you some lesser known underdogs which are carving out a demand for themselves in today's expanding tech industry.

Virtualization

Virtualization is the act of creating a simulated version of computer resources instead of a physical or actual version. You can virtualize computer hardware, operating systems, servers, network resources and storage devices. Careers in virtualization include virtualization engineers, support engineers, cloud engineers, instructional designers and system engineers. Though most of the virtual machines were hard-coded in earlier days through the C programming language, we now have a flurry of tools to ease out the task of creating virtual machines.

VMware
VirtualBox
QEMU
XEN Project.

Quantum computing

Quantum computing requires algebraic skills to develop algorithms for computations based on quantum theory principles. Quantum theory is a part of modern physics that focuses on atomic particles. The idea of a quantum computer is that it's able to encode information in a qubit or quantum bit, which is smaller than a bit. Computers can currently only encode information in bits with a value of 1 or 0. Quantum computers are presently only a concept, but quantum technologies experts with quantum computing skills are important for continued research and

modeling. Quantum computers may seem like a far-fetched notion for a beginner but the growing popularity has led to even QC specific coding languages like SilQ. Some good places to start are

https://medium.com/future-crunch/quantum-computing-for-the-mildly-curious-2474c92c1f05

https://www.youtube.com/watch?v=0dXNmbiGPS4

Translation

Translation skills help you process programming languages, converting code from one computer language to another. Jobs that require computer translation skills include language engineers, intelligence analysts, data science consultants, geospatial analysts, IAM modelers, machine learning engineers and web content editors. With the growing popularity of cross platform applications, Coe translations have become indispensable to organisations. And all you need is a strong syntactical and logical grasp on a wide array of industry incorporated coding languages like java, python,c++, flutter etc.

Embedded System engineer

The embedded systems engineer is responsible for the design, development, production, testing, and maintenance of embedded systems. Oftentimes, this role leans more towards the software development side of the equation, which is why this position is also known as an embedded software engineer.Like the systems they manage, the embedded systems engineer requires experience with both hardware and software.

Programming languages such as C, C++, and Assembly Language are the most common requirements for this position. LabView is also popular for working with National Instruments data acquisition units. Depending on the job position, familiarity with other languages such as ADA, Lua, Rust, Python, VHDL, and Verilog may also be required.

LATEST TECH NEWS :

CRISPR startup wants to resurrect the woolly mammoth by 2027. Colossal lands $15 million to restore the woolly mammoth to the Arctic -- and thinks it can birth calves in four to six years.

Colossal has a very different goal: bringing the woolly mammoth back from extinction by 2027 using CRISPR, a revolutionary gene editing technology.The plan isn't to re-create true woolly mammoths exactly but rather to bring their cold-adapted genetic traits like small ears and more body fat to their elephant cousins, creating a hybrid that can wander the tundra where mammoths haven't been seen for 10,000 years. Colossal's co-founders are Chief Executive Ben Lamm, who started five companies before this, and George Church, a Harvard Medical School professor with deep CRISPR expertise.

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Apple co-founder Steve Wozniak launches space company following Elon Musk, Jeff Bezos.

Apple co-founder Steve Wozniak tweeted on Sunday about a "private space company" he's launching that's "unlike the others." Called Privateer Space, its mission is to "keep space safe and accessible to all humankind," according to a YouTube video Wozniak linked. Ripcord founder Alex Fielding is also a co-founder.

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Researchers develop new tool for analyzing large superconducting circuits
Method could help push forward the field of quantum computing.

New research tools are needed to fully develop quantum computers and advance the field. Now researchers have developed and tested a theoretical tool for analyzing large superconducting

circuits. These circuits use superconducting quantum bits, the smallest units of a quantum computer, to store information. Circuit size is important since protection from detrimental noise tends to come at the cost of increased circuit complexity. Currently there are few tools that tackle the modeling of large circuits.

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Largest virtual universe free for anyone to explore.

Forget about online games that promise you a "whole world" to explore. An international team of researchers has generated an entire virtual UNIVERSE, and made it freely available on the cloud to everyone.An international team of researchers developed the largest and most detailed simulation of the Universe to date and has made it freely available on the cloud to everyone. This simulation, named Uchuu, will help astronomers to interpret results from Big Data galaxy surveys.

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Computer Scientists Find a Key Research Algorithm's Limits.The most widely used technique for optimizing values of a math function turns out to be a fundamentally difficult computational problem.

Many aspects of modern applied research rely on a crucial algorithm called gradient descent. This is a procedure generally used for finding the largest or smallest values of a particular mathematical function—a process known as optimizing the function. It can be used to calculate anything from the most profitable way to manufacture a product to the best way to assign shifts to workers.Yet despite this widespread usefulness, researchers have never fully understood which situations the algorithm struggles with most. Now, new work explains it, establishing that gradient descent, at heart, tackles a fundamentally difficult computational problem. The new result places limits on the type of performance researchers can expect from the technique in particular applications.

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PROFESSIONAL ENGAGEMENTS :

NHAI Internship 2021: Engineers Can Apply for 5000 Opportunities, Stipend Rs 5000.

IIT Roorkee Invites Applications for 12-Month Certificate Online Course in Data Science

Xiaomi India Internship and goodies

HP offering internship opportunity for students of any degree as College Intern