



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
RAJKUMAR GOEL INSTITUTE OF TECHNOLOGY  
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**BYTES**  
NOT JUST ONES  
AND ZEROS

# BYTES

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## MISSION

To provide quality education in both theoretical and applied foundations of Computer Science and train students to effectively apply this education to solve real world problems.

To amplify their potential for lifelong high-quality careers and give them a competitive advantage in the challenging global work environment

## VISION

To be recognised globally for delivering high quality education in the ever changing field of Computer Science and Engineering, both of value & relevance to the communities we serve.

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# EMINENT PERSONALITY



**"The answers to your questions lie within-you just have to be courageous enough to do, what it takes to live your dreams"**

## Kusha Kapila



In the age of micro-content like Instagram reels and YouTube shorts, it is safe to say that almost all of us have stumbled upon the hilarious yet nuanced videos of Kusha Kapilaan Indian content creator, influencer and actor

who also works for Times Internet as a fashion editor/content creator. A graduate from NIFT, she gained popularity through her funny interpretations of South Delhi aunties, among other youth-centric comedy videos.

With a strong 2.8 million followers on Instagram and around 500k subscribers on Youtube Kusha is best known for her sketches that take digs at the country's rich as well as her other videos through which she manages to take on challenging conversations about the many issues women face in India.

Kusha was born on September 19, 1989, in the capital city of New Delhi. Kusha first began working as a fashion journalist. After working in the fashion industry for half a decade, she started working with Times Internet's iDiva when she got a shot at destiny and started into the world of content creation.

She began as a writer and artist for iDiva's social media pages and transitioned into a video star when her series of sketches that caricatured girls from South Delhi went viral and thus, began her stint with creating videos. Now she is a content curator and has worked in a few T.V. series like Social Media Star with Janice, Behensplaining, Myntra Fashion Superstar, Back Benchers, Access Allowed, Son of Abish. She also ventured into acting and starred in movies like ghost stories and Plan A Plan B.

Kusha Kapila has worked hard with conviction to reach where she is today but we are all aware that success is a double-edged sword, and so her journey hasn't been as much of a cake walk as it seems she has fallen pray to trolling on multiple accounts.

"I feel existence leads to trolling; anything that exists will be trolled. It is a harsh truth, but we have to accept it. We existed so our relatives trolled us throughout our pubescent years, and later, our love interests trolled us. When you are on social media, people troll you. Everybody won't ever agree with you, and everything you do will not be in allowance with everyone else. Vicious trolling like unnecessary character-shaming and death threats can be reported and one must, I encourage people to do that." Said Kusha in one of the interviews.

Kusha Kapila is an internet sensation who has not only rocked the social media platforms with her funny vines, video, and fashion trends but she also uses her social media platform to voice her opinions and even bring out social change – in whatever way possible. She has been extremely vocal about political issues, social causes and mental health in her videos. In an interview with Vogue Kapila said “A lot of my content is for women, and I don't mind saying that. I talk about body positivity, about loving yourself, about sexism, about feminism, I speak about all the issues that must be spoken about, but



obviously infuse them with my humour.” In an effort to keep her content diversified, fresh and new, she uses her humor to satirize and raise her voice on important issues and affect many people. She is a true influencer helping change people’s lives and minds.



# TECH BYTES



**"The best way to predict the future... is to invent it"**

## Quantum Computing

Quantum computing is an area of computer science that uses the principles of quantum theory. Quantum theory explains the behaviour of energy and material on the atomic and subatomic levels.

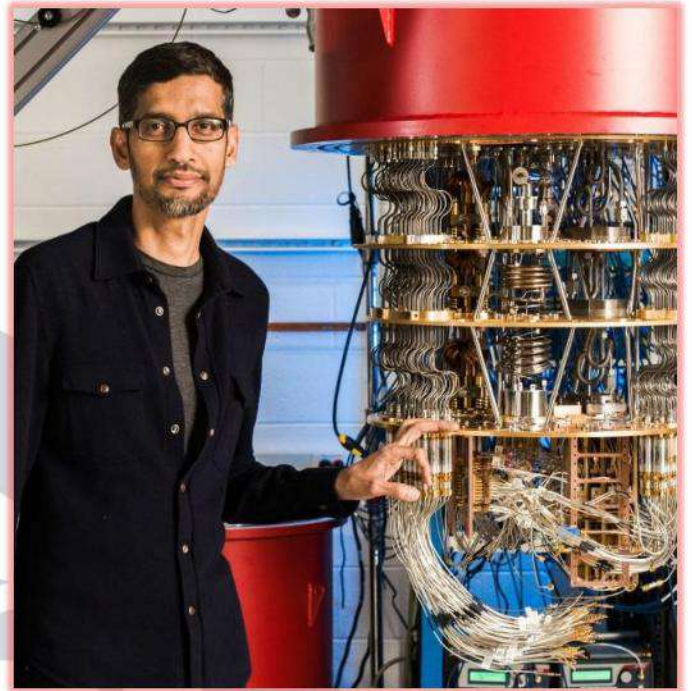
Quantum computing uses subatomic particles, such as electrons or photons. Quantum bits, or qubits, allow these particles to exist in more than one state (i.e., 1 and 0) at the same time.

Theoretically, linked qubits can "exploit the interference between their wave-like quantum states to perform calculations that might otherwise take millions of years."

Classical computers today employ a stream of electrical impulses (1 and 0) in a binary manner to encode information in bits. This restricts their processing ability, compared to quantum computing.

### How Fast Is a Quantum Computer?

A quantum computer is many times faster than a classical computer or a supercomputer. Google's quantum computer in development, Sycamore, is said to have performed a



calculation in 200 seconds, compared to the 10,000 years that one of the world's fastest computers, IBM's Summit, would take to solve it.

IBM disputed Google's claim, saying its supercomputer could solve the calculation in 2.5 days. Even so, that's 1,000 times slower than Google's quantum machine.

## **Benefits of Quantum Computing:**

- Financial institutions may be able to use quantum computing to design more effective and efficient investment portfolios for retail and institutional clients. They could focus on creating better trading simulators and improve fraud detection.
- The healthcare industry could use quantum computing to develop new drugs and genetically-targeted medical care. It could also power more advanced DNA research.
- For stronger online security, quantum computing can help design better data encryption and ways to use light signals to detect intruders in the system.
- Quantum computing can be used to design more efficient, safer aircraft and traffic planning systems.

# TECH NEWS



**“Our Future success is directly proportional to our ability to understand, adopt and integrate new technology into our work”**

## Elon Musk under federal investigation



Twitter sued Elon in July, forcing him to close the deal. Now the company claims that Musk claimed his investigative privilege and refused to hand in any documents without cause.

## 5G shipment grow 30% in Q3

The premium smartphone segment (Rs 25,000-Rs 50,000) and the super-premium smartphone segment (Rs 50,000-Rs 1,00,000) saw shipments increasing by 9 per cent and 39 per cent (year-on-year), respectively.



## Nokia new 5G smartphone 'G 60' to be launched in India soon

Nokia G60's specs include the Snapdragon 695 SoC, 6.58" 120Hz FullHD+ LCD, and a 4,500 mAh battery with 20W charging



## Noise Two wireless headphones launched

The Noise Two carry a price tag of Rs 1499, and customers can buy the new over-ear headphones from GoNoise e-store Amazon, Flipkart and Myntra starting today. These are also available in Bold Black, Calm White and Serene Blue colours.



# UPCOMING EVENTS



**"Participation gives you experience to upgrade your qualities, qualities makes you perfect to enhance your stardom"**

## India CSR Summit

The 9th CSR Summit in India. Conference | Exhibition | Networking | Masterclass. 15th - 16th November, 2022 Venue: Hotel Pullman, New Delhi. Our Sponsors & Partners. Skills Development Partner. Health Care Partner. CSR Advisory Partner. CSR Impact Awards partner. SAMS- Silver Partner. Better Education Partner.

CSRBOX and NGOBOX co-hosted the India CSR Summit. It is the largest CSR forum in India. This summit brings together CSR foundations and government agencies as well as businesses, CSR foundations and social enterprises.

Date: 15-16 november 2022

Palce: Rastrapati Bhawan, New Delhi

Link: <https://indiacsrsummit.in/>





### VIRTUAL SOFTWARE DEVELOPMENT CONFERENCE

Join a software development conference Build Stuff 2022 with a FREE ONLINE NETWORKING TICKET.

It's more than a software development conference...

It's 3-days filled with fun, value-packed ideas, and career opportunities that could potentially change this world - AND YOURS - for the better.

#### 1. FIND YOUR DREAM JOB

Every year, tens of TECH companies send their best recruiters to the Build Stuff conference to hire talented developers. And each year, hundreds of developers walk away with better-paying, more challenging, and rewarding jobs for sharing their ideas. They are hired on the spot! And given the chance to actually be all that they dream of!

#### 2. UPDATE YOUR SKILLS & LEARN ABOUT TRENDS IN THE SOFTWARE DEVELOPMENT FIELD

The conference covers everything you need to know about software development and technologies, with more than eighty breakout sessions as well as insightful and practical keynotes, workshops, and hands-on labs. Participants in the Build Stuff conference include world-class speakers, cutting-edge technology companies, and enterprises such as Nasdaq, Microsoft, AWS, IBM, and many others.

# ACHIEVEMENTS



**"The level of our achievements is limited only by our imagination and no act of kindness, however small, is ever wasted."**

**Akash Saraswat, 4<sup>th</sup> year** has successfully completed a free online course of **“OOPS Concept in C++”** presented by **Great Learning Academy.**



**Manan Singh, 4<sup>th</sup> year** has successfully completed and received a passing role in **IBM Cloud Essentials.**



Certificate ID Number: 45cf130a551e43ceb21ef2f75352f328

October 2, 2022.

**Manan Singh, 4<sup>th</sup>** has successfully completed 5 weeks of internship in **AWS** with the title of **“Deploy a cloud”**.



**Manan Singh, 4<sup>th</sup>** has successfully completed an online course of **“Machine Learning”** authorized by **Stanford University** offered through **Coursera**.



**Akash Saraswat, 4<sup>th</sup>** has gratefully recognized of their continuing support to help grow community of **Devtown.**



# FACULTY CORNER



**"If you are planning for a year, sow rice;  
if you are planning for a decade, plant trees;  
if you are planning for a lifetime, educate people"**

## The Brighter Side

The Brighter Side of Life...

When desires are no more ,

When happiness is not on the shore,

Close your eyes to cherish the things

Which you have never looked at before.

You can feel the pain if you want to feel it.

Time is a healer if you want to use it.

Burn out the anger as you use to keep it.

Close the chapter when you never end it.

Life is not a loop, to be in juggle.

Life is not complex, to be in struggle.

Life is not dark, to be a blind.

Life is full of hope, just keep that in mind.

There is no end to the way of light.

If you want to live, you have to fight.

If you let yourself live in a moment

Your fate will always be bright.

By-

Vineet Shrivastava

Assistant Professor

# STUDENT'S CORNER



**"You can't use up creativity.  
The more you use, the more you have"**



**India is the country where the greatest scholar of  
the ages had taken birth,  
It is the land of rishi-munis, and gods retain their  
knowledge on this earth,  
The soil is fertile from vedas and purans,  
Even science can fail, we have an asset of  
precious knowledge,  
Oh, God! We are too lucky to have birth on this  
land,  
Goddess Saraswati has given boon on education,  
The goddess of knowledge where we worship  
our books and take inspiration,  
The independence had brought a revolution in  
education,  
We have reached the moon, invaded the  
universe and explore the hidden theories,  
We India has created a history in technology and  
sciences,**

**Education of India has provided a unique identity  
to us,  
The world is bowing towards the country we have  
created lots of histories,  
Many more to go!  
The education of India can never be compared from  
any country,  
Education of India has the essence of our originality  
and proud history,  
The technology has grown up we have reached the  
moon,  
We have created history in launching several many  
satellites and fulfilled ambition,  
We have outshined with the flying colours,  
We have shown the courage to fight with failures  
and beat the struggles with our beautiful and  
knowledge full education**

**- Pragya Singh  
3rd year, Section-B**

## त्रेतायुग - श्री राम का

त्रेतायुग श्री राम के अवतरण से धन्य हुआ,  
धन्य हुई वसुधा, धन्य हुआ ये मानवलोक,  
दर्शन पाकर पार हुई जीवन की नैया,  
किया कल्याण असंख्य का तृप्त हुई तृष्णा भक्तों की,  
सत्य, धर्म, सदाचार से पोषित हुआ त्रेतायुग श्री राम का!  
सत्य सनातन धर्म का भगवा परिचायक हुआ,  
राम राज्य में सब खुश, सब संतुष्ट हुए,  
हुई भक्तिभाव और राष्ट्रप्रेम समाहित हर जन के मन में,  
हुआ अधर्म का नाश मर्यादा पुरुषोत्तम के श्री हाथों से,  
उद्धार हुआ अधर्मी का भी प्राप्त हुई शरण जिन्हें श्री राम के  
द्वारा,  
अवतरण एक लीला थी, सिखाना था सबको धर्म का पाठ,  
हुए बड़े ज्ञानी, ओजस्वी अपार किन्तु वही हुआ स्वीकार,  
जिसने धारण किया धर्म का द्वार,  
रावण महा ज्ञानी, प्रकांड ओजस्वी प्राणी,

वेदों का ज्ञाता शिव का भक्त सोचे तीनों लोकों का स्वामी,  
दंड मिला अधर्म का निज पाप का किए हुए अत्याचार का,  
दशहरा प्रतीक हैं!

धर्म की जीत का, अधर्म की पराजय का,  
सत्य के विश्वास का असत्य के अत्याचार का,  
बुराईयों की राख का अच्छाईयों के खुशी का,  
यह दिवस सिखाता चलते रहो धर्म की राह पर,  
कुछ अंश तो ग्रहण करो श्री राम के विशाल व्यक्तित्व का,  
चलो बनाये इस कलयुग को त्रेतायुग श्री राम का,  
जहाँ हो राम राज्य, सजे हर द्वार राम दरबार ,  
उजियारा हो धर्म के दीपक का, सम्मान हो हर प्राणी का,  
नाश कर खुद के भीतर उस अधर्मी का,  
उद्घोष करो, शंख से गुंजायमान करो वातावरण को,  
कि त्रेतायुग पुनः आएगा!  
मर्यादा पुरुषोत्तम के जीवन से सीख कर,  
हर जन श्री राम जैसा बन जाएगा,  
त्रेतायुग पुनः आएगा•

- Pragya Singh  
3rd year, Section-B



- Yash Badoniya  
3<sup>rd</sup> Year, Section-D

# ARE U MISSING WHAT'S NEW



**"Technology unlocks a chance to connect everything together in a new way & is dramatically transforming how we live"**

## Robot helps reveal how ants pass on knowledge

Scientists at the University of Bristol have developed a small robot to understand how ants teach one another. The robot mimics the behaviour of rock ants that use one-to-one tuition, in which an ant that has discovered a better nest can teach the route there to another individual. The pupil ant learns



the route sufficiently well that it can find its own way back home and then lead a tandem-run with another ant to the new nest, and so on. Researchers, led by Prof Nigel Franks of Bristol's School of Biological Sciences, built a large arena with an appreciable distance between the ants' old nest, which was deliberately made to be of low quality, and a new, better one that ants could be led to by a robot. A gantry was placed atop the arena to move back and forth with a small sliding robot attached to it, so that the scientists could direct the robot to move along either straight or wavy routes. Attractive scent glands, from a worker ant, were attached to the robot to give it the pheromones of an ant teacher.

## A robot learns to imagine itself

Researchers have created a robot that is able to learn a model of its entire body from scratch, without any human assistance. In a new study, the researchers demonstrate how their robot created a kinematic model of itself, and then used its self-model to plan motion, reach goals, and avoid obstacles in a variety of situations. It even automatically recognized and



then compensated for damage to its body. The researchers placed a robotic arm inside a circle of five streaming video cameras. The robot watched itself through the cameras as it undulated freely. Like an infant exploring itself for the first time in a hall of mirrors, the robot wiggled and contorted to learn how exactly its body moved in response to various motor commands. After about three hours, the robot stopped. Its internal deep neural network had finished learning the relationship between the robot's motor actions and the volume it occupied in its environment.

# INTERNSHIPS



**"Study what you love and intern in what you want to do"**



### PHP And Java Development

Servon Solution LLP



**Work From Home**

#### **START DATE**

Immediately

#### **DURATION**

3 Months

#### **STIPEND**

10000/Month

#### **APPLY BY**

20<sup>th</sup> November 2022

#### **About the work from home job/internship**

Selected intern's day to day responsibilities include:

- Analyzing the website and application requirements
- Writing back end code and building efficient PHP modules

#### **Who can apply?**

Only those candidates can apply who:

- Are available for the work from home job/internship
- Can start the work from home job/internship between 5<sup>th</sup> Nov'22 and 10<sup>th</sup> Dec'22
- Are available for duration of 2 months
- Have relevant skills and interests
- Woman wanting to start/restart their career can also apply.

#### **PERKS**

- Letter of recommendation
- Certificate

#### **NUMBER OF OPENINGS**

4

**LINK :** <https://internshala.com/internship/detail/php-and-java-development-work-from-home-job-internship-at-servon-solution-llp1667745174>

## Machine Learning

Velocity Global Solutions



### Work From Home

### START DATE

Immediately

### DURATION

3 Months

### STIPEND

15000-20000/month

### APPLY BY

20<sup>th</sup> November, 2022

### SKILL(S) REQUIRED

- Data Science
- Deep Learning
- Machine Learning
- Natural Language Processing (NLP)

### Who can apply?

Only those candidates can apply who:

- Are available for full time (in-office) internship
- Can start the work from home job/internship between 6<sup>th</sup> Nov'22 and 11<sup>th</sup> Dec'22
- Are available for duration of 3 months
- Have relevant skills and interests

### PERKS

- Certificate
- Letter of Recommendation
- Flexible Work Hours

### NUMBER OF OPENINGS

4

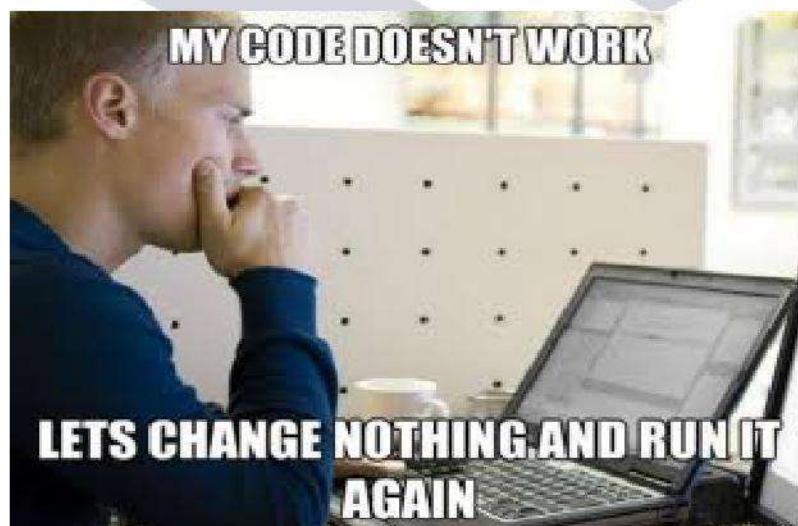
**LINK :** <https://internshala.com/internship/detail/machine-learning-work-from-home-job-internship-at-velocity-global-solutions1667736993>

# FUN SECTION



**"PLAY is our brain's favourite way of learning."**

## When you try to teach your parents how to use technology





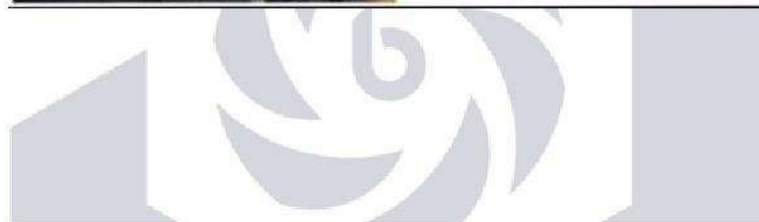
(LAUGHING)

**Looking at  
programming  
memes**



(CRYING)

**Actually  
coding**



Zoom meeting,  
audio only

Zoom meeting  
with video







**BYTES**  
NOT JUST ONES  
AND ZEROS



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