

USICT ACM PRESENTS

CHRONICLES

3.0



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MESSAGE FROM THE DEAN

USICT ACM Student Chapter was inaugurated in 2019 with an aim to give students an exposure to advancements in computing world.

Keeping the motto of ACM in mind, "Advancing Computing as a Science and Profession", the chapter organised plethora of events, throughout the year, like talks, workshops, competitions, symposiums, etc. I am sure students must have gained through these opportunities.

I would like to appreciate the efforts of the whole ACM team and wish all the best to the newly elected office bearers. Kudos to the whole USICT ACM team for a meaningful manifestation of our endeavors and achievements.

Prof. Pravin Chandra
Dean, USICT



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MESSAGE FROM THE BRANCH MENTOR

USICT ACM Chapter was inaugurated in January 2019 with the aim to provide a platform to bright and talented students of USICT to participate in various Workshops and Competitions.

Within the first years of its launch, the Chapter has not only organized various events but has also facilitated exposure to its Office Bearers. Tamanna and Sapna participated in ACM National Convention at Jaipur in August 2019 and Abhishek in ACM Symposium on Computer Science and Law in New York, USA in October 2019. The kind of exposure USICT students have gained by interacting with fellow members of ACM on world platform has been amazing.

With sincere thanks to Prof. Pravin Chandra, Dean@USICT for providing all encouragement and support. I convey best wishes to newly elected office bearers of 2021 - 22.

Dr. Rahul Johari
Branch Head, USICT ACM



MESSAGE FROM THE BRANCH MENTOR

" The best way to predict your future is to create it."

Abraham Lincoln

As we know ACM is the world's largest educational and scientific society , our team of USICT ACM chapter is working in its full swing to grow it more.

Last year, there is a growth of 3000% of members in ACM USICT. ACM USICT provides the computing platform for the students by conducting a number of events like workshops, talk shows, summer internships, blogs , Google STEP internship and many more.

ACM USICT team is constantly working with challenges and pushing their own boundaries to get the best for the engineering undergraduate students.

With my sincere thanks to Prof. Pravin Chandra, Dean@USICT, Dr. Rahul Johari (Branch Head) and Dr. Jaspreeti Singh (Branch Head), I wish good luck to all the office bearers for the next coming session.

Dr. Ruchi Sehrawat
Branch Head, USICT ACM



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MESSAGE FROM THE BRANCH MENTOR

It's been 3 years and the USICT ACM Chapter continues to enhance the department's ability to meet the needs of students, to offer them services and to provide them with an opportunity for increased inclusion and participation in various activities. It is a vibrant group made up of a number of smart clubs ranging from tech savvy clubs like Innovative AI, DevSource to Research Cell and Entrepreneurs' Arena which conducted over 40+ events in the last year.

Particularly, Trellathon - "GGSIPU's Biggest Virtual Hiring Challenge" was one of the most exciting 2 weeks' event organized in association with Ensevee. Apart from being a great learning experience to participants, the winning team also got an Internship opportunity from ENSVEE's Partner Company TREL.

My sincere thanks to Prof. Pravin Chandra, Dean@USICT for providing encouragement and guidance. With best wishes to all members of the USICT ACM family for a year of ever memorable achievements, good health and societal contributions,

Dr. Jaspreeti Singh
Branch Head, USICT ACM



ACM

ACM, the world's largest educational and scientific computing society, delivers resources that advance computing as a science and a profession.

USICT ACM

USICT ACM Student Chapter was launched in 2019 to promote the Computer Science culture in USICT. At USICT ACM Student Chapter, we see a world where computing helps solve tomorrow's problems, where we use our knowledge and skills to advance the profession and make a positive impact.

Top three **Facts!** about USICT ACM

01

GLOBAL WINNERS OF ACM OUTSTANDING WEBSITE

02

3000% MEMBER GROWTH IN 1 YEAR

03

CONDUCTED 40+ EVENTS AND STILL COUNTING.....



MOTTO

Advancing Computers as a Science and Profession



VISION

ACM (Association for Computing Machinery) Student Chapter of USICT aims to provide students, research scholars, faculty members and the whole community, opportunities to explore the world of computers.

" ENJOYING YOUR WORK LEADS TO PERFECTION "

~Aristotle



Dean
USICT



Branch
Head
USICT ACM



2+
years
experience



Office
Bearers



Hardwork



Executive
Members

proud to be
part of
**USICT
ACM**



25+
events
organised



USICT ACM
Webteam

Dedication

2+

years
experience

Out-
standing
website
award

proud to be
part of
USICT
ACM

ACM Website

" ENJOYING YOUR WORK
LEADS TO PERFECTION "

~Aristotle



**USICT ACM
Operations Team**



2+
years
experience



Commitment

proud to be
part of
**USICT
ACM**



25+
events
organised



35mm FILM



1

1A



2

2A

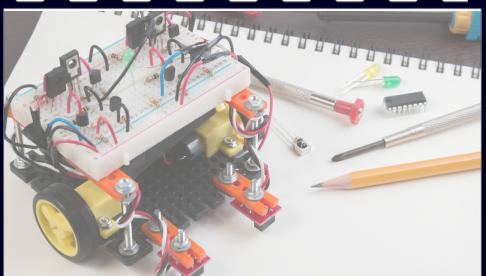


3

3A

CLUBS IN

35mm FILM



1

1A



2

2A



3

3A

USICT ACM

35mm FILM



1

1A



2

2A

```
# Prevent database truncation in the environment
1   import os
2   import json
3   from . import db
4
5   db.app.config['SQLALCHEMY_DATABASE_URI'] = os.environ.get('DATABASE_URL')
6   db.app.config['SQLALCHEMY_TRACK_MODIFICATIONS'] = False
7   db.init_app(db.app)
8
9   from flask_migrate import Migrate
10  migrate = Migrate(db, db.app)
11
12  from flask_cors import CORS
13  cors = CORS(db.app)
14
15  from flask_jwt_extended import JWTManager
16  jwt = JWTManager(db.app)
17
18  from flask_limiter import Limiter
19  limiter = Limiter(db.app)
20
21  from flask_caching import Cache
22  cache = Cache(db.app)
23
24  from flask_mail import Mail
25  mail = Mail(db.app)
26
27  from flask_socketio import SocketIO
28  socketio = SocketIO(db.app)
29
30
31  # Add additional requirements below this line
32
33  # Required dependencies and tools
34  # - specifcally, and via pip
35  # - specific file
36  # - specific command
37  # - run specific file
38  # - end command for required
```

3

3A

1

Innovative AI

The objective of Innovative AI club is to create awareness and equip the students with the ability as well as skills to analyze and understand the technology in the field of AI. The club serves as a place for the community to discuss, learn about, and work on topics related to machine learning, Data Science and AI. Various Events related to the latest Technologies and Algorithms are also organized, along with competitions and Guest Lectures.



**Adarsh
Dhir**
Lead



**Anirudh
Gautam**
Vice-Lead

2

ICPC Club



**Aman
Tayal**
Lead



**Rajnikant
Roy**
Vice-Lead

ICPC Club focuses on promoting and nurturing the sport of Competitive Programming. ICPC Club opens opportunities for students to learn critical thinking skills and solving problems within unfairly short time limits. The Club hosts various coding competitions in order to prepare for various competitions like ACM-ICPC, Google Code Jam and likewise. It also provides a forum for the discussion of theory and applications of algorithms.

3

RobIOTics

RobIOTics is the Electronic Club of ACM USICT. It covers 3 major technical fields which are Robotics, the Internet of Things, and Robotic Process Automation. The goal of this club is to share knowledge, resources, and opportunities related to the specified fields with each other and build the electronic community of our college extensively. RobIOTics Club organises many technical events such as competitions and tech Talks on various technologies and Guest Lectures etc.



**Manik
Singal**
Lead

4

CyberChain

The CyberChain club is set with a goal to teach individuals about cybersecurity and help them gain the knowledge necessary to arm themselves against modern-day computer exploits. This group also gives an opportunity to the students to gain knowledge in the field of Cryptography and BlockChain. It organises hands-on learning events with industry experts, educational workshops, and ongoing projects for the students.



**Tushar
Anand**
Lead

5

enGame



**Rishabh
Pant**
Lead

enGame the Gaming group of USICT is a student-run group that aims to promote competitive gaming culture in the campus and beyond. Gaming Culture is growing exponentially in India and Games can also be a stress buster for the students. Gaming Group brings an opportunity for students to showcase competitive prowess in various gaming events conducted by it.

6

XD

XD - The Designing club aims to promote creativity and to increase the technical knowledge of the students in graphic designing and UI/UX. This club provides an opportunity to students to learn Graphic Designing and UI/UX using modern software. XD CLUB also organises various events like technical sessions on graphic software, workshops, competitions and much more.



**Vishesh
Gupta**
Lead

7 Entrepreneurs' Arena

The Entrepreneurs' Arena is a club which cultivates and equips businessmen and Women for the future. Its Goal is to benefit and develop aspiring entrepreneurs as it will act as a platform for applying and exercising academic learnt skills. It organises networking events, peer to peer development, learning opportunities and provides an informal platform to discuss your innovative ideas.



**Pratham
Mittal**
Lead



**Ankit
Pandey**
Vice-Lead

8

DevSource



**Kashish
Jain**
Lead



**Deepak
Chaurasiya**
Vice-Lead

DevSource is a community of students highly enthusiastic about OpenSource, APP, and WEB Development. The club provides an opportunity for students with a common interest in development and open source, to gather and develop together. DevSource organizes various events and workshops for the students to learn new technologies and build hands-on projects.

9

Research Cell

Research Cell is not just a domain for highly qualified professionals but is a platform for anyone who has the curiosity to know and the ability to think out of the box. ACM USICT Research Cell aims towards flourishing the research culture of GGSIPU.

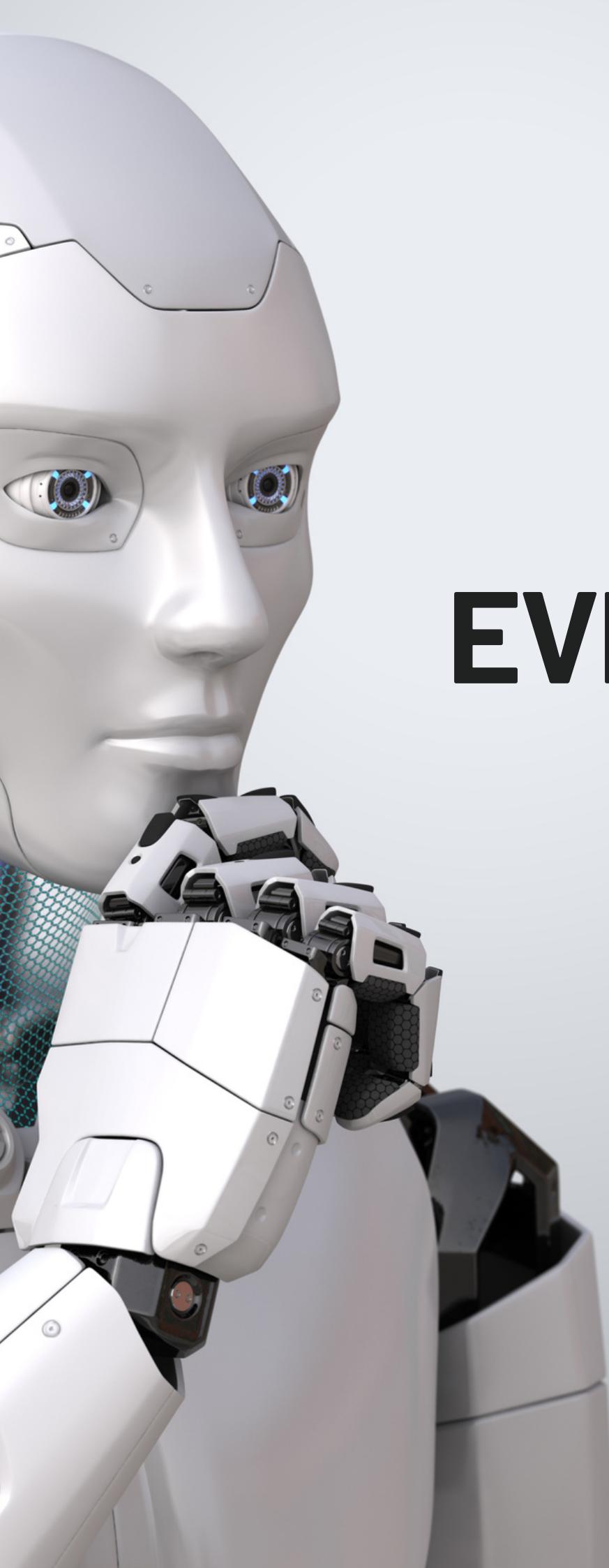
Its goal is to guide the students of USICT towards excellence in their domain of interest and to encourage them to conduct research and look for new possibilities in that domain, eventually improving India's contribution towards the advancement of humanity.



**Prateek
Thakur**
Lead



**Tushar
Khanduri**
Vice-Lead



USICT ACM

EVENTS OF

2021



EVENTS TIMELINE



JAN-MAR



1. TALK ON ADVANCES AND CHALLENGES IN DATA MINING
2. DECODISASTER
3. TALK ON "HOW TO WIN HACKATHON AND ICPC"
4. 10 DAYS CODEFORCES CHALLENGE
5. STTP ON 'CYBER SECURITY AND FORENSICS'
6. TRELLATHON
7. WEBINAR ON "EXPLAINABLE ARTIFICIAL INTELLIGENCE FOR INTERNET OF THINGS"



APR-JUNE



1. AMA SEASON-2
2. CHESS TOURNAMENT
3. CALL OF DUTY MOBILE TOURNAMENT
4. VALORANT TOURNAMENT
5. BLOG WRITING COMPETITION
6. WORKSHOP ON "BASICS OF ARDUINO"
7. SESSION ON REACT NATIVE
8. WORKSHOP ON RESUME BUILDING
9. HOW TO READ A RESEARCH PAPER ? FIRST STEP TOWARDS RESEARCH.
10. GETTING STARTED WITH FIREBASE
11. GRAPHIC DESIGNING AND ITS CAREER PROSPECTS

JUL-SEP



1. WORKSHOP ON INTERNSHIPS
2. DEVELOPER'S NIGHT
3. UTKRISHT - SUMMER INTERNSHIP PROGRAM 2021
4. USICT ACM FUN FIESTA 2.0
5. USICT ACM -GSOC EVENING
6. USICT ACM - IPL AUCTION
7. FOUNDATION DAY CELEBRATION
8. CODEWARS



OCT-DEC



1. USICT ACM STUDENT CHAPTER ELECTIONS 2021
2. FDP on MOODLE



ICPC and National Science Day



28th Feb 2021

USICT ACM Student Chapter organized a talk on "How to win hackathons and ICPC", on the occasion of National Science Day, 28 February 2021 starting from 9:30 am.

Over 100 students took part in the seminar and benefited from it. The talk was given by Dr. Prashant Nair who is the Associate Professor of CSE at Amrita School of Engineering, Amrita Vishwa Vidyapeetham (Deemed-to-be-University), Coimbatore. Professor Dr. Prashant Nair provided attendees with some fascinating and valuable knowledge that helped attendees and made them aware about ICPC. The talk started with the professor explaining all out ICPC and benefits of ICPC and hackathons. In the latter half of the talk, the professor gave the roadmap about how one can prepare for ICPC and hackathons.

DecoDisaster

28th Feb 2021

USICT ACM Student Chapter organized DecoDisaster on the occasion of National Science ,28 February 2021.

It was an hour-long event in which participants were provided with a few password-protected PDFs. Every previous pdf will contain a password for the next PDF. The fastest competitor to submit the answers were declared as winner. The event was fun filled activity and was intended to improve the problem solving skills of students. Apart from this prizes worth 5k were awarded.





Trellathon

| 24th March 2021

ACM USICT organized Trellathon –“GGSIPU’s Biggest Virtual Hiring Challenge” from 9 March 2021 to 24 March 2021 in association with Ensevee.

Trell is India’s largest short video platform with over 100 million users and 10 Billion views per month..Participating teams worked on solving real life industrial problems given by Trell and pitched their innovative solutions to them. The event was a great learning curve for students and presented them with a platform to showcase their skills.Finally ,Winning team got an Internship opportunity from ENSVEE’s Partner Company TRELL and Prize worth 30,000 from ACM Student Chapter of USICT along with various other perks!!

UTKRISHT

| September 2021

ACM USICT organized the ACM Flagship Summer Internship program 2021 called “UTKRISHT” for students.

Students doing internship were assigned mentors and under their guidance had to submit a final report till 13 September .We saw some mind-blowing projects and so many unique presentations during the course of internship. It is impossible to count all the ways that the mentors have guided the students in their projects.Finally on the occasion of ACM Foundation Day Professor Dr Rahul Johari(Faculty and head of ACM USICT) and Dr Amit Prakash Singh who is professor at University Centre for Incubation-Cum-Technology Commercialization (UCITC) awarded prizes to winners for best internship projects.



ACM USICT Summer Internship

Duration: July to August 2021

- An initiative to work with top notch mentors with great innovative ideas

Register at:
usict.acm.org/summerinternship



www.usict.acm.org

@acmusict

ACM FOUNDATION DAY

| 15th September 2021

ACM USICT celebrated the foundation day of ACM on 15 September 2021, to mark the foundation day of ACM USICT.

The event took place on Google Meet. The program was intended to spread knowledge about ACM among students. The event started with tech talk on "Understanding Robotic Process Automation-overview and Simulation using UNiPATH" by Mr. Parth Budhiraja who is a Senior Sap Consultant ,Deloitte.He talked about RPA and artificial intelligence , applications of RPA in various fields and also simulated tools required to implement RPA.

The next speaker is professor meena mahajan who is professor at the institute of Mathematical Sciences,CIT campus.She talked about some interesting algorithms and programs. She also discussed different approaches to problem solving.



TECHNICAL BLOGS



A BRIEF INTRODUCTION TO COMPETITIVE PROGRAMMING

Competitive Coding/Programming is something that every CS Student has tried at least once throughout their time in College. It is basically a mental sport which tests your problem solving abilities.

Every now and then many platforms organize Coding Competitions where thousands of individuals face off to solve a problem in the fastest time. Many students start in this race against time but very few stay in the race. What people tend to forget is that this is not actually a Sprint but a Marathon.

The first step to excel in Competitive Programming is to learn Data Structures and Algorithms. Many including me start without focusing much on DSA and then realize the blunder they have made. DSA is undoubtedly the backbone of this sport. You need to know which Data Structure to apply in which conditions to get optimized results. There are many resources available to learn DSA, you can get them for free on YouTube or take paid courses through platforms like CodingNinjas, CodeBlocks, Udemy etc



When it comes to the programming language, C++ is the one most widely used simply because it is relatively faster and execution times play a crucial role. Java, Python, Kotlin are other widely used languages. Each language has its own merits and demerits and knowing one does not give you an edge over the other participants in any way. You just need to pick the one you are most comfortable with and practice practice and practice!!!

Now that you have decided on your Programming Language and have excelled it, its time to get down to the business. For starters I would recommend to go through the Problem Solving on Hackerrank. It has a lot of problems specific to a certain programming language and also a list of questions based on Data Structures and Algorithms respectively. It also provides Certification depending on the skills that you have.

A BRIEF INTRODUCTION TO COMPETITIVE PROGRAMMING

Now if you want to participate in live competitions, one of the first websites you will come across is CodeChef. The rating system here ranges from 1 Star to 7 Stars and the programmers are divided into 3 Divisions, this ensures that the beginners don't have to compete with the higher ranked individuals. CodeChef organizes 4-5 Competitions each month, namely, Lunchtime, Cook-Off, Long Challenge, Starters and more. The eligibility of a few depends on your rank. CodeChef is an excellent place to begin participating in live competitions and you will see many students putting their CodeChef ratings in their resumes as well. There are many other websites like CodeForces, LeetCode, TopCoder, HackerEarth etc. where you can practice and participate in Competitions but it is not necessary to be a part of all. You can select a few and take part in competitions regularly.

Coding Competitions organized by Google

Perhaps the most famous Coding Competitions are the ones organized by Google, namely Hash Code, Code Jam and Kick start. Participating in these gives you the perfect experience of a proper Coding Competition.

The best part is, if you perform exceedingly well, Google may approach you with a Job Offer too!! No wonder some of the best coders out there are all the participants of this competition. Similar to Google, other companies organize their own competitions too like the Hacker Cup organized by Facebook (Meta).

If you are a beginner however the only important thing to keep in mind is to practice everyday, participate in competitions regularly and most important of all, never get demotivated because there can be times when your rank just won't improve, when your ratings would be stagnant but these are temporary and in the long run, Competitive Programming can be very rewarding as well. Hope you got the idea of how to start with Competitive Coding, see you soon at the top of the Leaderboards.



Rajnikant Roy
CSE 2024

HOW TO GET STARTED WITH YOUR PORTFOLIO WEBSITE

Let's say, You are a professional and you want to showcase your works and skills on a website. You can do that by creating a Portfolio Website.

A portfolio website provides professional information about an individual or a company and showcases their work.

A portfolio Website is like a Business card for Future Clients and Potential Employers. It boosts your online presence. Now you might think making a website is very Technical. The Answer is Yes, and no. Creating a website requires a piece of technical knowledge but, a person without any programming skills can also make a website. So, if you are the one with some programming knowledge, making a portfolio website is Fun. You can use any Web Technology to code your website. You can design it as you want. The next step is hosting your website to make it public.

Web Hosting is a service that allows people and businesses to post websites. Hosting services provide special equipment. Support including 24 hours customer care and technology most people don't have.



This includes servers, which are costly high availability computers. Hosting is of 3 types: Free, Shared, and Dedicated. • Free hosting can be convenient, particularly when we're starting, but the problem with free hosting is that the service provided is of limited quality. • Shared hosting is, by far, the most common. Shared hosting is low-cost. Meaning, it's not particularly expensive. It would probably be a few dollars a month, but the cost is kept down because the hosting service shares resources between different websites. • Finally, there is dedicated hosting and higher cost, but it allows you to have a dedicated, personalized service within a hosting center. It is usually not necessary and is reserved for large businesses that need this kind of service.

HOW TO GET STARTED WITH YOUR PORTFOLIO WEBSITE



Now that you have decided to host your website, choosing your website's name is the next step. For Portfolio Websites, you can set your full name as your website name. You can check the availability of your website name on domain registration websites like name.com. Don't use words that might get you into legal trouble. For instance, notice here I've misspelled 'Cocakola.com.' If you do this, the Coca-Cola company might not like it and might even sue you.

Some points to keep in mind are - • Showcase your work on your Portfolio.

- Share Contact information like mobile no., email, LinkedIn, etc.
- A portfolio website with your Photograph looks good.
- Upload your Resume/CV on your Portfolio Website for potential recruiters.

• You can also give links to your Instagram, LinkedIn, Twitter, etc or those folks who do not code they can also create their Portfolio Website. Many Hosting Services will provide you with their CMS [Content Management System]. Companies like Hostinger, Shopify, BlueHost, GoDaddy, etc, provide CMS Services at low costs, Some of them even give Free trials so you can try them out. These CMS's helps you to create a website in Minutes. It's just a Drag-n-Drop Game. It is like everything is Precoded for you; you have to use them as elements.
So Now, Your Portfolio Website is ready. You can now mention it in your social media handles and resume/CV so that it can get in the sights of potential Recruiters and Businesses.

**ANURAG PARASHAR
CSE 2024**



INTERNSHIP PROGRAMS

INTERNSHIP PROGRAMS

UTKRISHT

USICT ACM organized the ACM Flagship Summer Internship program 2021 called "UTKRISHT" for students. Students doing internships were assigned mentors and under their guidance had to submit a final report by 13 September. We saw some mind-blowing projects and so many unique presentations during the internship. It is impossible to count all the ways that the mentors have guided the students in their projects. Finally on the occasion of ACM Foundation Day Professor Dr. Rahul Johari(Faculty and head of USICT ACM) and Dr. Amit Prakash Singh who is a professor at USICT and in charge of University Centre for Incubation-Cum-Technology Commercialization (UCITC)awarded prizes to winners for best internship projects.

GirlScript Summer of Code is the 3 month long Open Source program during summers conducted by GirlScript Foundation, started in 2018, with an aim to help beginners get started with Open Source Development while encouraging diversity. GirlScript Summer of Code would give you a taste of contributing in a long open source projects. Continuously for 3 months you will contribute to your assigned projects under guidance of experienced mentors.

**GSSOC (GirlScript
Summer of Code)**

INTERNSHIP PROGRAMS

MLH Fellowship

The MLH Fellowship is a 12-week internship alternative for aspiring technologists. Our programs pair fun, educational curriculum with practical experience that you can put on your resume right away. It's collaborative, remote, and happens under the guidance of expert mentors. MLH also offers a stipend to accepted Fellows who require one in order to participate in the fellowship. The stipend won't replace a full-time job, but it can help offset some of your living and educational expenses during the program. The amount of the stipend is determined by your track and the country you are residing in during the program.

Microsoft Engage is a mentorship program conducted by Microsoft in the month of June-July, and opens for only 2nd-year students, application opens towards the end of 2nd year (this timeline may vary with college), and students from some specific colleges are selected. It offers 1:1 mentorship to shortlisted students while working on a project, learning sessions specially curated for Engage students and a sneak peek into Microsoft's culture and values.

Microsoft Engage Mentorship Program

INTERNSHIP PROGRAMS

Google Step Internship

Google's STEP internship is designed for first and second-year undergraduate students with a passion for computer science. It provides opportunities for interns to complete challenging technical projects which will provide them exposure to develop their technical skills. All STEP interns will receive coaching and mentorship from Google engineers to guide them through their summer experience. It will also help interns build important personal networks and friendships with a diverse group of students who share their passion for technology and computer science.

Outreachy is a three-month-long internship program which is organized by the Software Freedom Conservancy .. It is a paid and remote internship, and it is conducted twice a year that is from May to August and December to March. Outreachy provides internships in open source and one can contribute to open source. It provides stipends of 5500 USD to interns . It also boosts learning and gives great industry and practical experience. One can learn more about new technologies and tools, and will get to learn from their mentors too.

Outreachy Internship Program



USICT ACM STUDENT CHAPTER

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