

Exploring Opportunities for Undergrads



And how to make the best out of them

Outline

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02	Projects & Hackathons
03	Open Source
04	Internship Programs
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Organisations & Volunteering

Organisations you should associate with, and why

- **IEEE, ACM, SWE, Women Who Code, Women TechMakers, Anita.B Org, DSC, Mozilla, WiDS/WiMLDS, Teach for India, Rotaract**
- Demonstrates all-round abilities, including leadership abilities, willingness to take initiatives, and how well you work in teams
- Benefits include – access to resources, projects, programs, and conferences
- Great way to connect with your peers, do meaningful work, and find mentors



Projects & Hackathons

Projects, and how Hackathons help

- Projects: An outlet for showcasing your technical skills
- Hackathons: An opportunity to work on projects

What can you learn from Hackathons?

- Team building exercise
- Brainstorming social/environmental issues
- Building Applications
- Selling your idea
- Understanding business aspects of an idea

Notable Contests for working on Projects

Ignited Innovators of India	Contest sponsored by Eaton for social issues
Avery Dennison Scholarship	Sponsored by IIE exclusively for First Year students
DSC Solution Challenge	Sponsored by Google and DSC
NIDHI Prayas Yojana	A Government of India initiative for startup incubation
Smart India Hackathon	National-level Hackathon, with industry, government and organisational participation
IBM Call for Code	Annual contest for fighting climate change with tech
FB School of Innovation AR Open Program	Program to promote Augmented Reality, extremely exclusive

Open Source

What is Open Source? Why contribute to it?

- According to RedHat, “Open source is a term that originally referred to open source software (OSS). Open source software is code that is designed to be publicly accessible—anyone can see, modify, and distribute the code as they see fit* ”
- You can contribute to open source on sites like GitHub, Bitbucket




Open Source Organisations



Source - github.com

- Linux
- RedHat
- Python Statistical Foundation, R Project, MongoDB, Django
- TensorFlow, OpenCV, scikit-image
- Adobe
- KDE
- Mozilla, and many more

Structure of Open Source Programs

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- 1 **Community Bonding** – Interact with mentors from the organisations
 - 2 **Application** – Select Projects of your choice to apply to
 - 3 **Coding** – Contribute to their code repositories
 - 4 **Review** – Final review of your work

About

Google Summer of Code is a global program focused on introducing students to open source software development. Students work on a 3 month programming project with an open source organization during their break from university.

Since its inception in 2005, the program has brought together 14,000+ student participants and 24,000+ mentors from over 118 countries worldwide. Google Summer of Code has produced 35,000,000+ lines of code for 651 open source organizations.



Link: <https://summerofcode.withgoogle.com/about/>

Important Dates:

Registration & Selection of Projects: Feb - March, Coding Period: May - August

Outreachy provides internships to work in Free and Open Source Software (FOSS). Outreachy internships are open to applicants around the world. Interns work remotely, and are not required to move. Interns are paid a stipend of \$5,500 USD for the three month internship. Interns have a \$500 USD travel stipend to attend conferences or events.

Interns work with experienced mentors from FOSS communities. Outreachy internship projects may include programming, user experience, documentation, illustration, graphical design, or data science. Interns often find employment after their internship with Outreachy sponsors or in jobs that use the skills they learned during their internship.

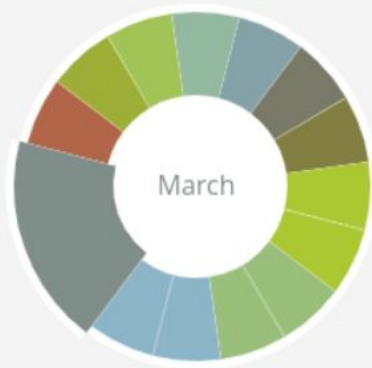
We expressly invite women (both cis and trans), trans men, and genderqueer people to apply. We also expressly invite applications from residents and nationals of the United States of any gender who are Black/African American, Hispanic/Latin@, Native American/American Indian, Alaska Native, Native Hawaiian, or Pacific Islander. Anyone who faces under-representation, systemic bias, or discrimination in the technology industry of their country is invited to apply.



Link: <https://www.outreachy.org/>

Important Dates:

Coding Period: October - November



Off season

Season of KDE 2020

Season of KDE is an outreach program hosted by the KDE community.

To learn how to apply, see [the announcement article](#).

For some inspiration for your proposals, take a look at our [Ideas page](#).

 Dec 09, 2019 to Feb 17, 2020

 [Show deadlines](#)



Log in or sign-up to participate

Link: https://season.kde.org/?q=program_home&prg=47

Important Dates:

Coding Period: December – February

fossasia

CODEHEAT RUNS FROM SEPTEMBER 15, 2019 TO FEBRUARY 2, 2020

{In the Heat of the Code}

Build up your developer profile with FOSSASIA and win a trip to our summit in Singapore from March 19-22, 2020

Register for Code Heat

Learn More

Link: <https://codeheat.org/>

Important Dates:

Coding Period: September - February



RAILS GIRLS SUMMER OF CODE

JUL - SEPT ★ WORLDWIDE

[READ ABOUT OUR 2019 PLANS](#)



Link: <https://railsgirlssummerofcode.org/>

Important Dates:

Coding Period: July - September



GIRLSCRIPT *Summer Of Code*

Link: <https://www.gssoc.tech/>
Important Dates:
Coding Period: March - May

KWoC 19 Archive

Kharagpur Winter of Code

See you in KWoC 20
Check out the Archive Section to
know about KWoC

Scroll Down
to Know More



Link: <https://kwoc.kossiitkgp.org/>
Important Dates:
Coding Period: November – January

Internship Programs

What can you do as an undergraduate intern?

- Contribute to Open Source
- Work with a startup, get real work done
- Work under a Professor, contribute to their research
- Work at a Corporate, gain industry experience



International Research Programs

International Internship programs are organised every summer, either partially or fully funded

- MITACS, Canada
- Charpak, France
- DAAD, Germany
- CERN Openlabs, CERN Summer Program
- Carnegie Mellon's Robotics Institute Summer Scholars (RISS)
- Cold Email :)

Research at Indian Institutes

Following premier institutes host undergrad students, either as part of summer programs or independently

- Several IITs, most notably IIT – B, IIT – Madras, IIT – Delhi
- Specific Labs at IISc, IISER
- Tata Institute of Fundamental Research (TIFR)
- National Centre for Polar and Ocean Research (NCAOR)
- Indian Institute of Remote Sensing (IIRS), Defence Research and Development Organisation
- Space Applications Centre TREES Program
- Tata Research Development and Design Centre (TRDDC)
- Cold Email :)

Corporate Internship Opportunities

- Many companies have off-campus internship opportunities, including Goldman Sachs, Amazon
- Google Student Training in Engineering Program (STEP) internship
- LinkedIn Wintathon
- Microsoft Codess
- IBM Projects, under Connect to Build
- Cold Email :)

Placements

Avenues

- Campus Placements
- Off-Campus Applications
- Through contests (Infosys)
- Referrals
- Be approached :)

Preparation

- Competitive Coding
- Complete understanding of the projects you've done
- Good balance of academics and co-curricular activities

Professional Advice

- **Learn how to write impactful emails**
- **Use GitHub extensively**
- **Make a blog**
- **Participate wholeheartedly**
- **Ask questions**
- **Build upon your fundamentals**
- **Build a Network**
- **Explore**



Personal Advice

- Interact, be social
- Seek mentorship
- Figure out your interests
- Don't underestimate yourself. You'll never know what you can do unless you try
- Have fun!



Questions?