



Open-Source 101

- About Me



Google Summer of Code 2020 Mentor



Google Summer of Code 2019 Student



Google Code-In 2019 Mentor



Linux Foundation Scholarship Recipient 2019 & 2020



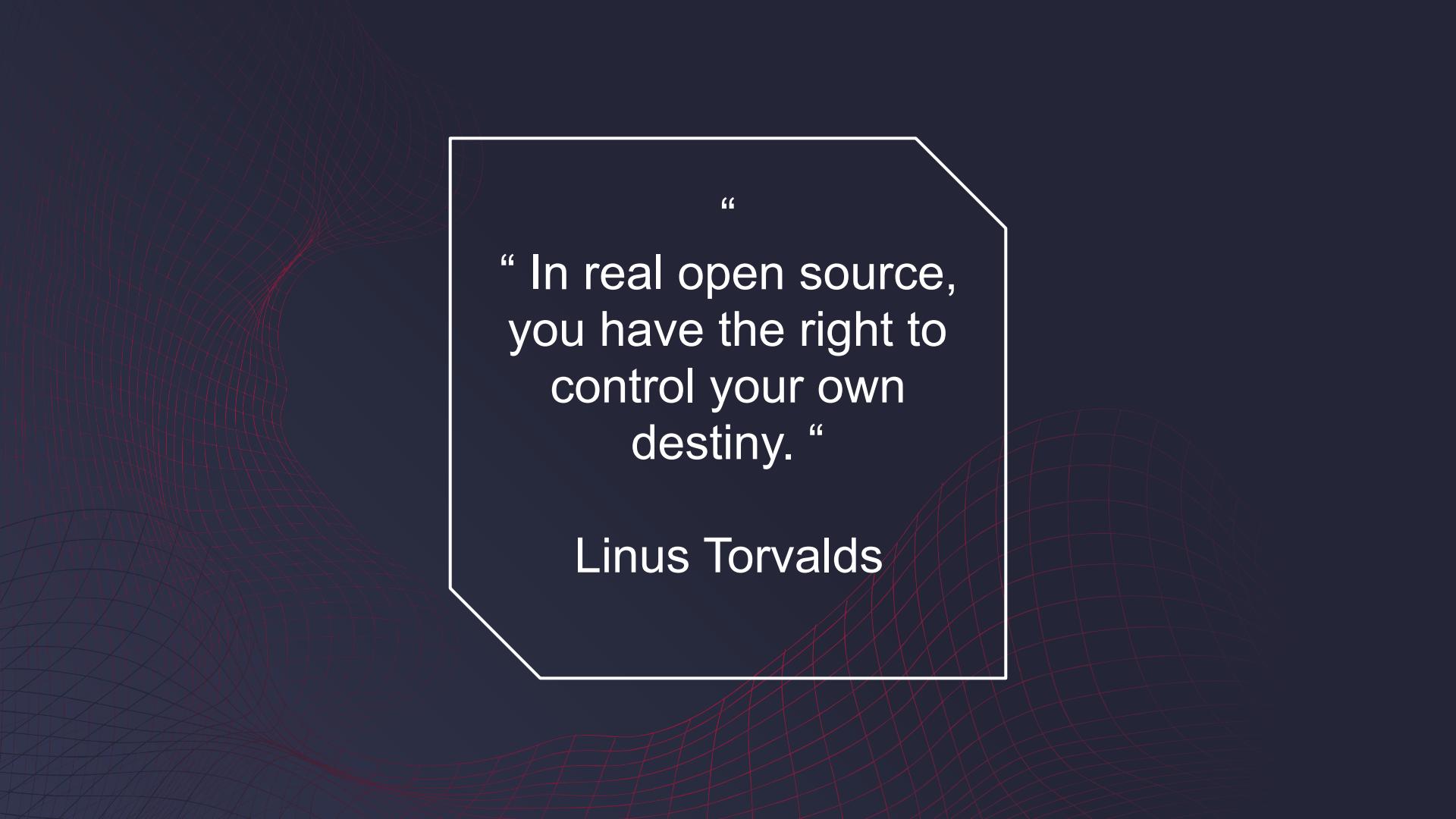
Microsoft Student Partner

Schedule

- | | |
|----|----------------------------------|
| 01 | Intro to FOSS |
| 02 | Stepping in the FOSS Communities |
| 03 | All about GSOC |
| 04 | Version Control Systems |
| | QNA Session |

01

FOSS Community?



“ In real open source,
you have the right to
control your own
destiny. ”

Linus Torvalds

Criteria for Open Source

- open as in free
- open as in access
- open as in modify
- open for anyone,
anywhere
- open for reuse

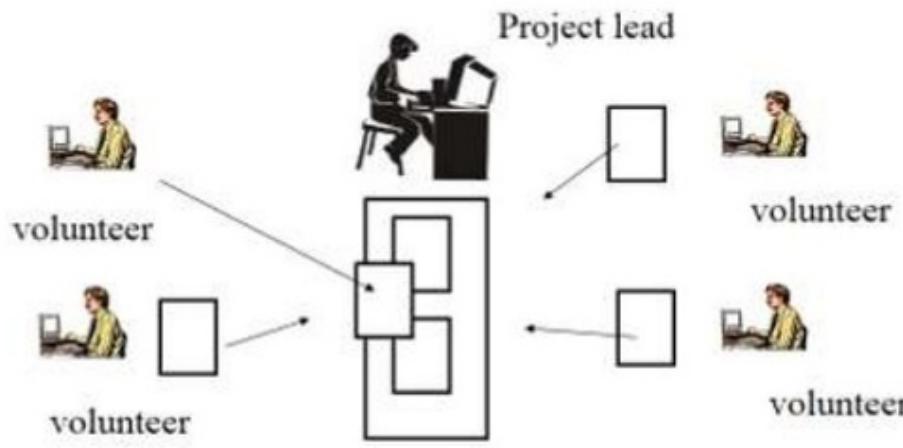
Why embrace Open Source?

- Quality and reliability
- Security and stability
- Adaptability and customisation
- Freedom and flexibility
- Cooperation and community

Some examples
of Open Source
Softwares



OPEN SOURCE DEVELOPMENT MODEL



Why contributing is important?

- Real world software development experience
- Community Bonding
- Exposure
- Test your skills
- Satisfaction!

01

Stepping in the FOSS world

Prerequisites

- Git
- A programming language
- Basic/Medium Knowledge of your tech stack





[codeheat]



BOSS

Bountiful Open Source Summer



mozilla



Winter of
Security



OUTREACHY



Venkat Panchapakesan Memorial

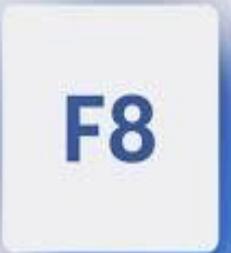
SCHOLARSHIP



Women Techmakers
Scholars



WWDC19
San Jose, CA, June 3-7



Google Summer of Code



01

What exactly is GSoC?

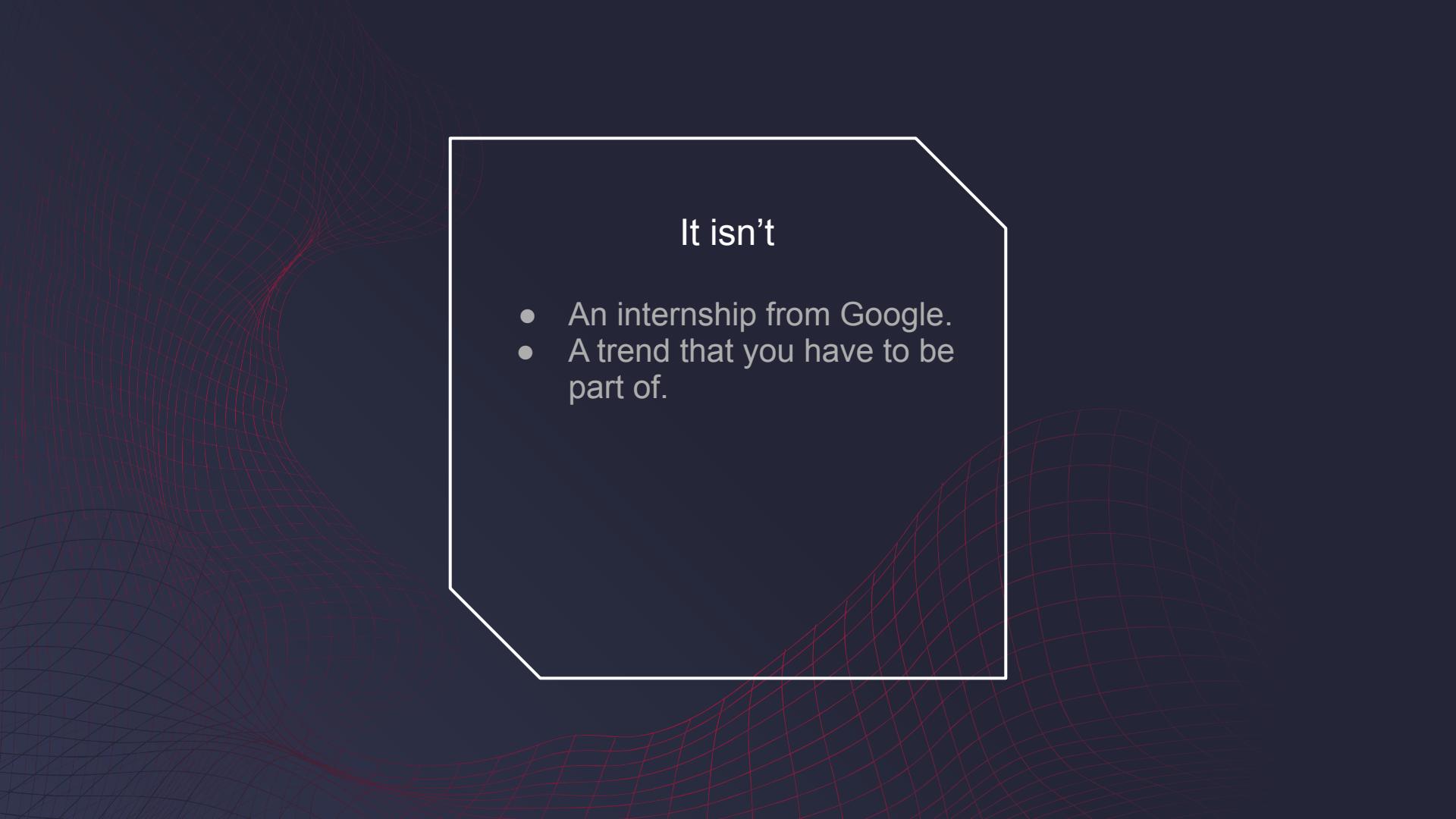
Simply put

It's a 16 week long program by Google aimed at promoting Open Source Software development among college and university students.

One Stop Website: <https://summerofcode.withgoogle.com/>

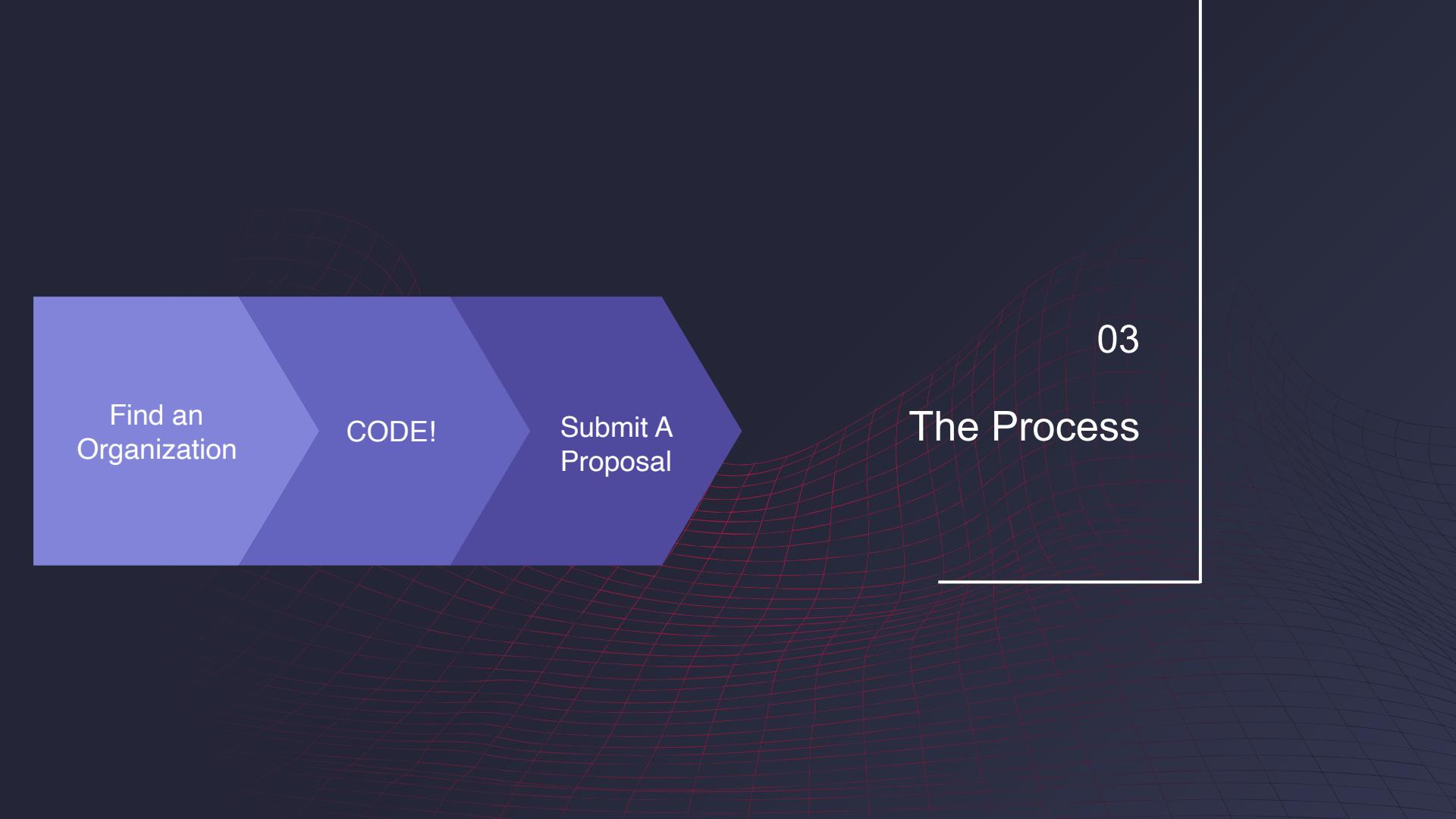
02

What it isn't ?



It isn't

- An internship from Google.
- A trend that you have to be part of.



Find an
Organization

CODE!

Submit A
Proposal

03

The Process

03

Timeline of GSoC

Source: <https://summerofcode.withgoogle.com/how-it-works/>

The Full Program Timeline

Organization Applications Open
January 16, 2019

Organization Application Deadline
February 7, 2019

Organizations Announced
February 27, 2019

Student Application Period
March 25, 2019 - April 9, 2019



Open source organizations that would like to participate as a mentor organization in this year's program can apply.

All organizations wishing to be a part of GSoC 2019 must complete their application by February 7, 2019 01:30 (India Standard Time).

Interested students can now begin discussing project ideas with accepted mentor organizations.

Students can register and submit their applications to mentor organizations. All proposals must be submitted by April 9, 2019 23:30 (India Standard Time).

Application Review Period

April 9, 2019 - May 6, 2019

Organizations review and select student proposals.

Student Projects Announced

May 6, 2019

Accepted students are paired with a mentor and start planning their projects and milestones.

Community Bonding

May 6 - 27, 2019

Students spend a month learning more about their organization's community.

Coding

May 27, 2019 - August 19, 2019

Students work on their Google Summer of Code projects.

```
while time.now() < deadline:  
    code() and debug() and document()
```

Evaluations

June 24 - 28, 2019

July 22 - 26, 2019

Mentors and students submit their evaluations of one another. These evaluations are a required step of the program.

Students Submit Code and Final Evaluations

August 19 - 26, 2019

Students submit their code, project summaries, and final evaluations of their mentors.

Mentors Submit Final Evaluations

August 26, 2019 - September 2, 2019

Mentors review student code samples and determine if the students have successfully completed their Google Summer of Code 2019 project.

Results Announced

September 3, 2019

Students are notified of the pass/fail status of their Google Summer of Code 2019 projects.

Choose Projects to Apply

Select from the list published by Google

Organizations

JavaScript ALL CATEGORIES



52°North Initiative for Geospatial Open Source Software GmbH
52°North works on innovative ideas and technologies in geoinformatics



AboutCode.org
Find the origin and license of code



aimacode
Code for the book "Artificial Intelligence: A Modern Approach"



AOSSIE - Australian Open Source Software Innovation and Education
Australian Umbrella Org for Open-Source Projects



BeagleBoard.org
Open hardware computing from kindergarten to kickstarter



BRL-CAD
Solid geometry, computer graphics, 3D printing, modeling, CAD, CAM, & other CAx!

04

How to choose an organisation?

List of organisations: <https://summerofcode.withgoogle.com/organizations/>

Two Approaches



Top Down

Learn the Skills



Choose the organisation



Bottom Up

Learn the Skills



Choose the organisation

How many organisations to choose?

05

What after choosing an organisation?

Three Pillars of successful integration into any org.



Introduce yourself

Join Slack/Gitter channel of your organisation and Introduce yourself.



Search for projects

Look at projects of the organisations. You can view the GitHub/gitlab page for recent activity. You can also visit GSoC archive for previous year projects.



Look for open issues and fix them

Look for open issues and try to solve them. Don't forget to claim the issue first in order to avoid any conflict with other active developers.

Filtering the MO's

Initial filtering:

- } You can filter some out by their programming language preference.
E.g., If you are a Java guy, look for Java projects.
- } Avoid MOs that produce something you cannot relate to at all. E.g.,
If you have no clue about operating systems, don't apply for OS
projects.
- } Some of you might want to avoid popular MOs (to avoid too much
competition) while others may not mind a challenge.

[tip]Don't expect the project to choose you

}Do not post messages such as the below:

} I know Java/C++, and have experience in XYZ. Any project interested in taking me?

}YOU study the projects and choose the ones YOU like; don't ask projects to choose you.

[tip]Don't post “clueless” messages

}Do not post “I’m new and totally clueless, please help me!” type messages. Here’s an example
(it’s an actual email posted in GSoC discussion group, names changed):

My Name is Lazy Student. I study at Lazy Land. This is the First time I heard of GSoC. I want help about joining GSoC. So, please anybody help me giving me guidance in joining a mentor which requires a java coder for their project and you can contact me through my mail and my mail id is lazy.student@gmail.com....I would be so thankful if u help me...

[tip] Start now!

The collage consists of five images arranged in a grid-like pattern:

- Top Left:** A YouTube video thumbnail titled "Algorithms with Rachit Jain" from "GSOC 2019 Prep Guide for Beginners". It shows a list of tips: "1) Depend ✓", "2) Review ✓", and "3) In during ✓".
- Top Middle:** A screenshot of the Google Summer of Code website. It highlights statistics: "13,000+ STUDENTS, 104 COUNTRIES", "12 YEARS, 607 OPEN SOURCE ORGANIZATIONS", and "30,000,000+ LINES OF CODE".
- Bottom Left:** A screenshot of a YouTube video titled "Introduction to Google Summer of Code(GSOC)". It features a large yellow logo with the code symbol "</>" inside a circle.
- Bottom Middle:** A screenshot of a YouTube video titled "GOOGLE SUMMER OF CODE". It features a man with a beard wearing a black t-shirt with a GSOC 2019 logo, standing in front of a blue background.
- Right Side:** A screenshot of a YouTube video titled "CRACKING GOOGLE SUMMER OF CODE". It features a man with a beard and a grey hoodie, standing in front of a dark background with geometric shapes.

Learn GIT

Git is a free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency. Git is easy to learn and has a tiny footprint with lightning fast performance.

Here is tutorial link: [https://guides.github.com/introduction/
git-handbook/](https://guides.github.com/introduction/git-handbook/)

Developer Cycle

Find existing open issues or create new ones.

Fix the issue within a limited amount of time.
Reach out for help to other members of organisation if necessary.

Send pull request.

Feb(Mid)'20



06

Make a proposal

Time to document all your efforts and knowledge

March'20-

Proposals!



#Laff

Start writing your proposals!

} Promote yourself in your application.

- Show enthusiasm.
- Show commitment.
- Show your knowledge and interest in the project.
- Give external links (cv, blog, home page, ...).

} Promote your project idea. Describe it clearly.

} Promise deliverables at various points.

In particular, promise to deliver working code in increments.

What is a proposal?

A proposal is a document which you submit to the organisation(s) you've selected in the above step which outlines a detailed breakdown on how you plan on enhancing/building the project in the 16 week coding period of Google Summer of Code.

Your proposal is going to be the secret key towards ensuring your selection so ensure that you are putting in extra efforts towards making it as detailed and informative as proposal.

Few Resources:

- <http://teom.org/blog/kde/how-to-write-a-kick-ass-proposal-for-google-summer-of-code/>
- <https://github.com/saketkc/fos-proposals>
- <https://github.com/rohithasrk/GSoC-Proposals>

My proposal : https://drive.google.com/file/d/1-p-LdVo41tASuLME6giPXj8_ziwJY4NI/view?usp=sharing

[tip] Don't parrot MO's description

- } Do not copy-paste from their own idea description into your application.
- } The same person who wrote that stuff will be reading your proposal.

[tip] Get Feedback

- } You can get your application reviewed by someone here.
- } Then, you can get it reviewed by a potential mentor.
 - **Don't push.** Just ask politely if they can give some feedback.
- } **Don't** wait until 1 day before the deadline to ask for feedback

[tip] (Do)n't bluff

Do Not:

- } oversell yourself.
- } promise things you cannot deliver.
- } pretend to know things you don't.

} Remember, your application will be evaluated by expert techies.



[tip] Give Details of Past Work

- } Any freelancing work?
- } Any past work on OSS projects?
- } Any college research?

March'20

Pray!!



@LateNightSeth

07

Apply before deadline

And if everything goes right you too can receive the following email



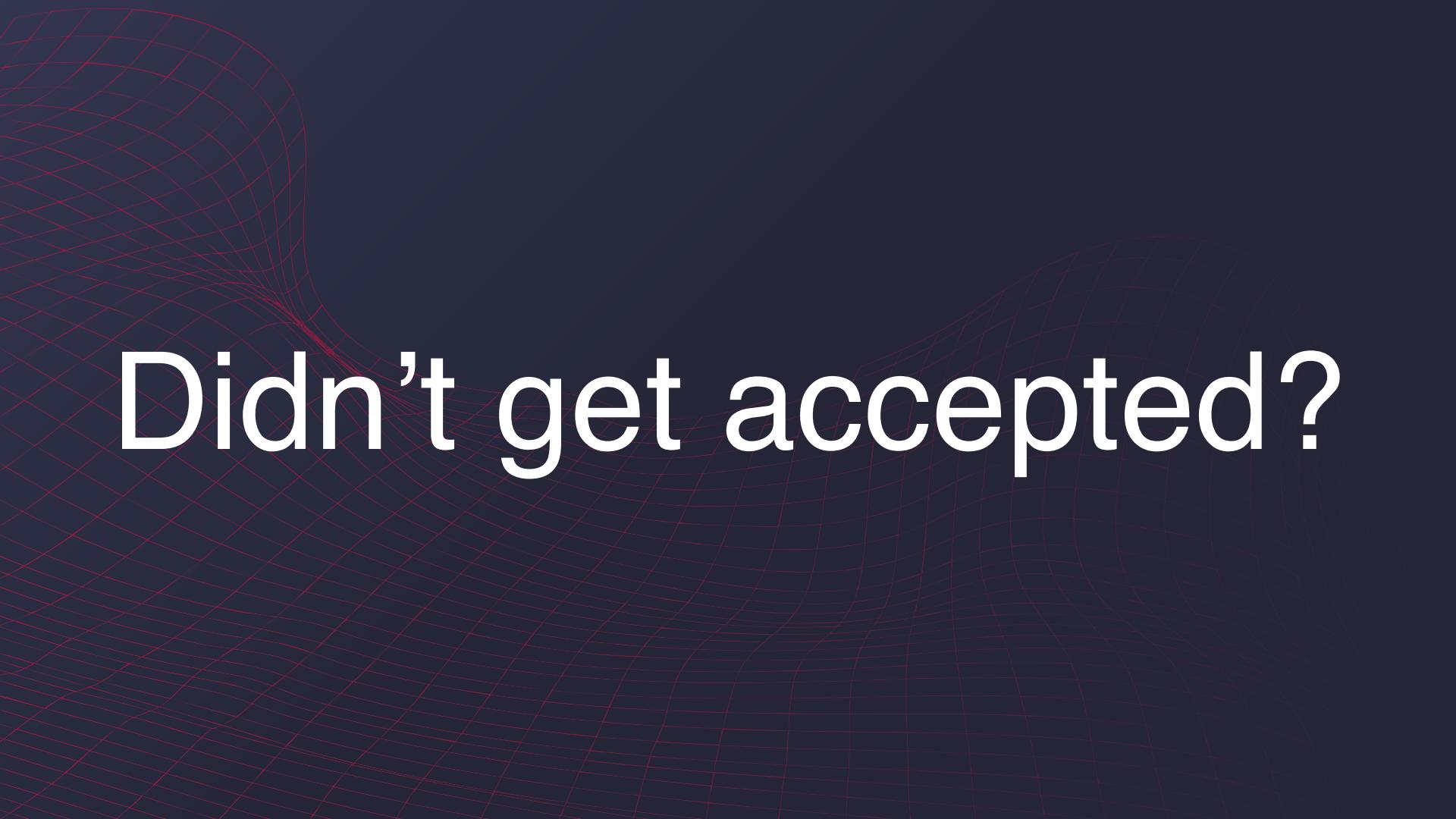
Google Summer of Code

Hi KunalKushwaha,

Your proposal [Adding support for missing resources & missing test coverage in Kubernetes-Client.](#) has been accepted!

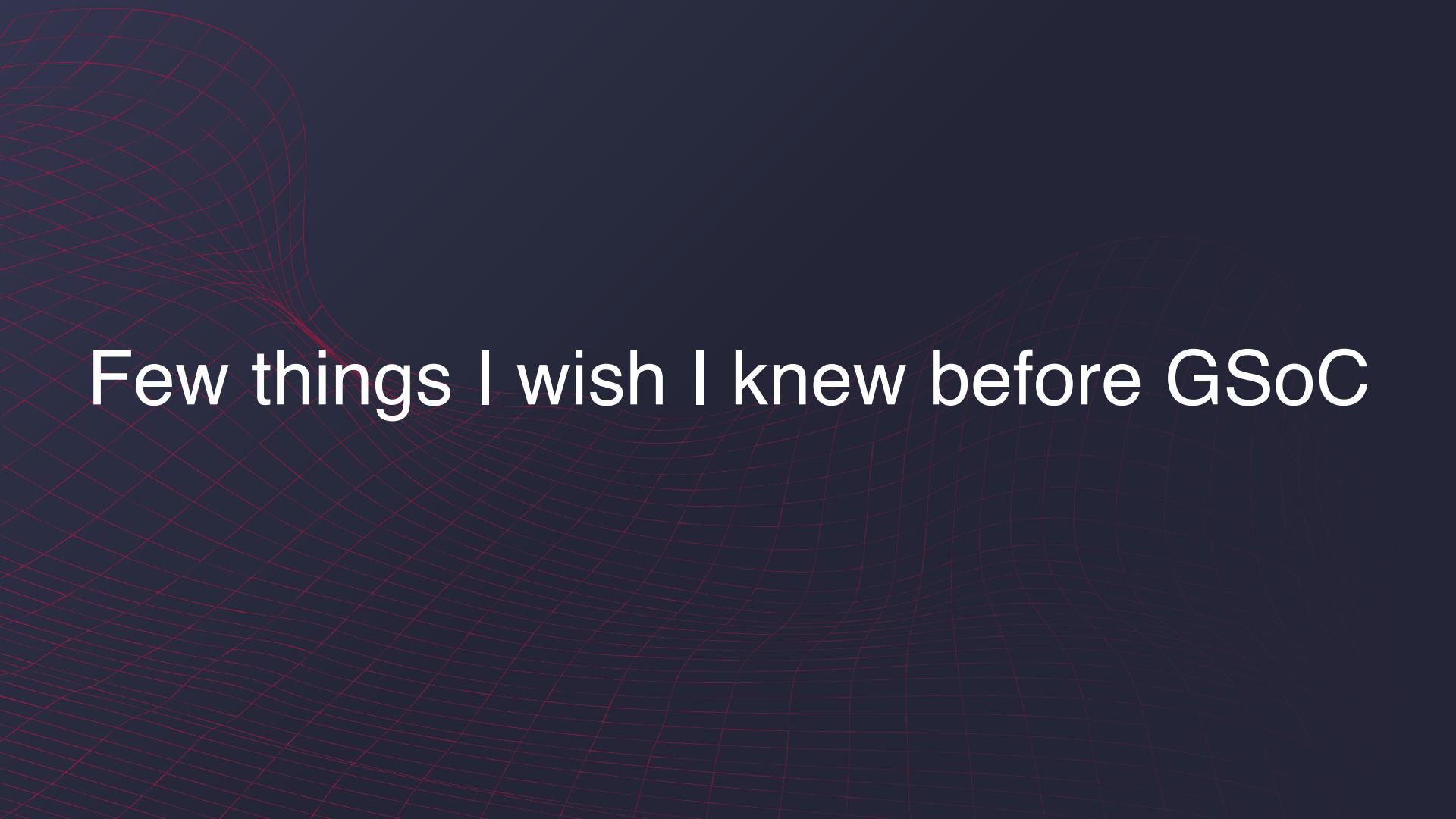
Welcome to GSoC 2019!

We look forward to seeing the great things you will accomplish this summer with JBoss Community.



Didn't get accepted?

- It's completely fine.
- You can apply next year with more experience.
- It's not always possible to find the real reason why you weren't accepted.
- Don't give up !



Few things I wish I knew before GSoC

- You don't need to be a pro.
- You don't need to be from CS background.
- You don't need to understand the entire code base in order to contribute.
- You'll have to manage GSoC with semester exams.
- Interact as much as possible with other developers.
- Never be rude and always participate in discussions.

Most of your time will be spent in research. For example:

- Studying trends of various organisations.
- Learning new technologies.
- Understanding code base. You will read more code than you will write.

This won't happen



THANKS!

Connect with me:

Email: kunalkushwaha453@gmail.com

Twitter: @kush_kunal

LinkedIn: <https://www.linkedin.com/in/kunal-kushwaha/>

Telegram: codeforcause