

# GRACE HOPPER CELEBRATION



ANITA  
B.ORG

October 3, 2:30 pm

#GHC19  
vTo join

# Better Together



The Inner Source Journey

# about us



**Aliza Carpio**

Principal Tech Evangelist



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**Rocio Montes**

Staff Software Engineer



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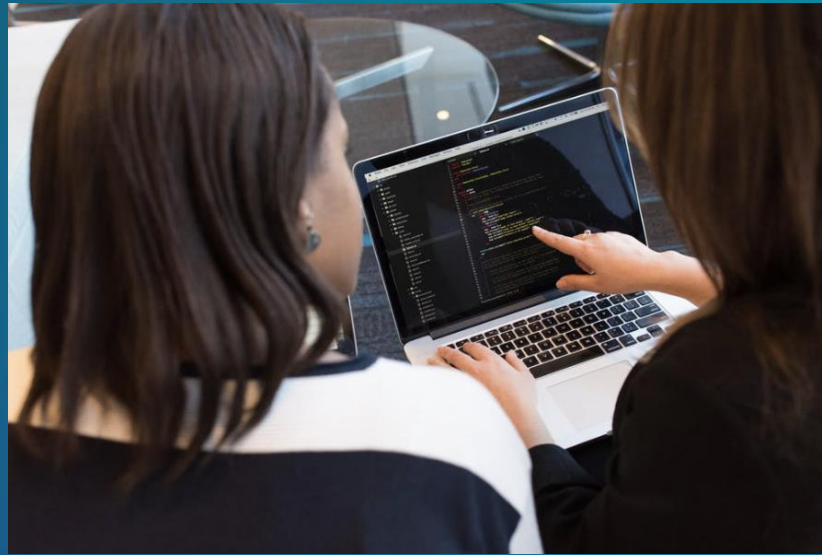
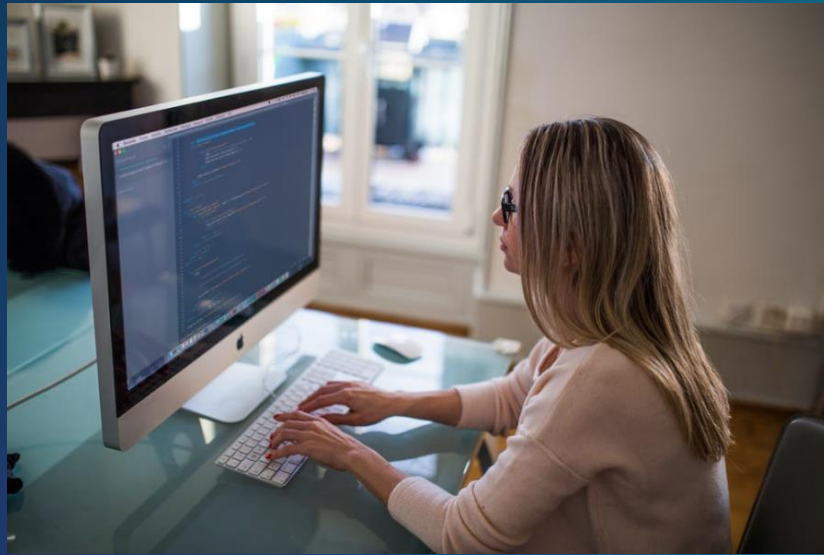


@roxiomontes



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In a world ... communities of practice, almost zero meetings, code stewards







A woman with long brown hair and glasses is sitting at a wooden desk, working on a silver laptop. She is wearing a light-colored button-down shirt. On the desk, there is a black mug and some papers with a pen. The background shows a brick wall and a white wall. The entire image has a blue overlay.

**There are hurdles to get to this nirvana**

# Challenges

Code is owned by teams and individuals = reliance on a person/team, resulting in long wait times

The “waiting” impacts work/life balance; at times, heroics to meet deadlines

Lack of documentation makes it hard to contribute

Varying standards across groups makes it challenging to “onboard” easily



# Solution: inspired by inner source

Apply open  
source practices  
internally





# Solution: inner source program



## Unified guidelines


Declare a single and unified “Inner Source Guidelines”



# Unified guidelines



- Suggested GitHub document structure for a repository to be set up for inner source
- Github provides helpful features when these documents exists
- Local development using containers



```
PROJECT_ROOT
├── .github
│   ├── CODEOWNERS
│   ├── CODE_OF_CONDUCT.md
│   ├── CONTRIBUTING.md
│   ├── ISSUE_TEMPLATE.md
│   └── PULL_REQUEST_TEMPLATE.md
└── README.md
```



- CI/CD automation
  - Pull Request (PR) builds
  - Unit tests
  - Code coverage



 **All checks have passed**  
6 successful checks

  **Jenkins** — This pull request looks good

  **codecov/patch** — Coverage not affected when comparing d1f9b59...7e

  **codecov/project** — 88.13% remains the same compared to d1f9b59

  **continuous-integration/jenkins/branch** — This commit looks good

  **continuous-integration/jenkins/pr-merge** — This commit looks good

# Solution: inner source program



## **Unified guidelines**

Declare a single and unified “Inner Source Guidelines”



## **Set up teams for success**

Mutual ownership, appoint decision makers (trusted committers), define SLA for review



# Set up teams for success

- Mindset reorientation adopting internal developers as their first customers
- Created a new role with defined responsibilities, called the Trusted Committer (TC)
- Code Review training, each PR is an opportunity for mentorship
- "On-call" TC rotation
- Defined SLA for reviews

# Solution: inner source program



## **Unified guidelines**

Declare a single and unified “Inner Source Guidelines”



## **Set up teams for success**

Mutual ownership, appoint decision makers (trusted committers), define SLA for review



## **Scale effort via influencers**

Create tech community “site” leaders



## **Prioritize foundational capabilities**

Services with which most teams integrate and from which changes are usually requested



## **Establish a rewards and recognition program**

End-to-end recognition system

# Getting started: practical first steps

Connect and align  
with your leaders to  
get support

*We connected with site  
leaders and partner with an  
engineer leader at each site.*

1

2

Research and unify  
standards:  
one playbook

*We created these guidelines on  
GitHub to have them close to  
engineers' day-to-day tools.*

Identify teams to  
be the “models” for  
inner source

*We identified foundational  
capabilities in each business unit.*

3

4

Conduct workshops  
to teach the “model”  
teams how to do  
inner source

*We have global tours and have  
one-week workshops with  
teams at different Intuit sites.*



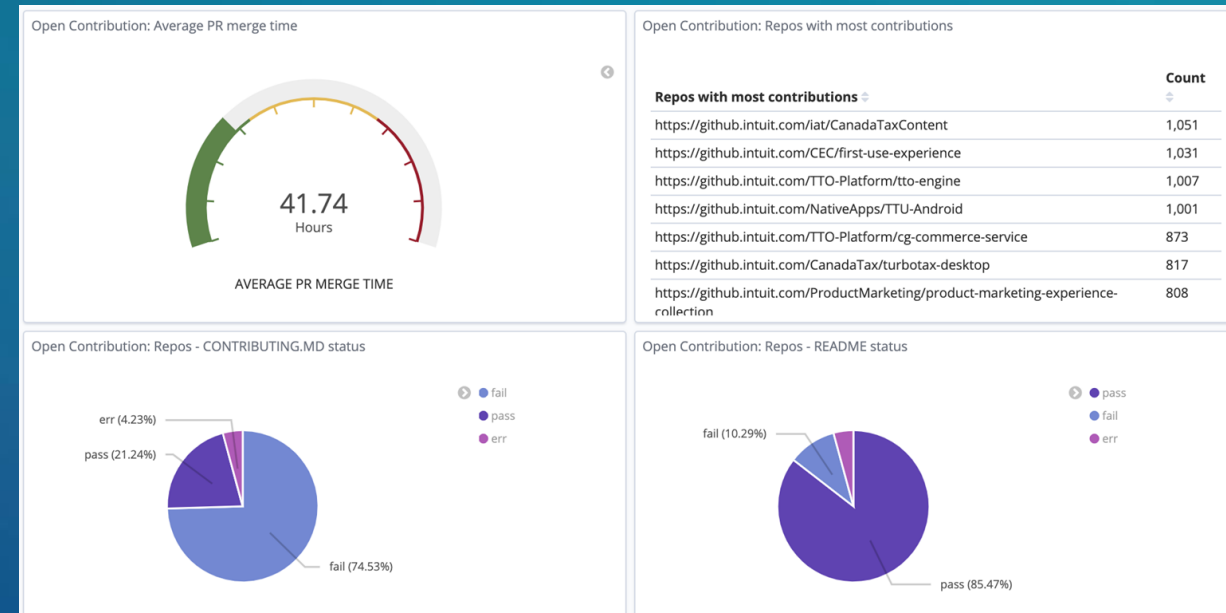
# Roles and skills you'll need

## Roles

- **Engineers** who can build “with teams” to show them how to work in an open source way
- **Product management** who understand and communicate that “inner source” enables business goals

## Skills

- **Measuring and analyzing data** to determine success of the program  
*We use GitHub Webhooks to gather data for each commit, PR and issue created.*
- **Sharing, story-telling and demoing the impact** of the program to leaders and teams across the globe - bring them along
- **Tooling and rewards** that makes engineers' lives fun and easier  
*We created the “Intuit First Time Contributions” site.*  
*We created a badge to award inner source practices.*



# Tooling

## Internal “first time contributions” site

### Welcome to Intuit First Time Contributions!

This webpage will help you find internal Intuit Projects to contribute to.

**QBO First Time Use (FTU)**

The first time use setup flow for new QBO users

React Javascript Plugin

[Github](#)[Issues](#)

**QBO Homepage**

The homepage for QuickBooks Online

React Javascript Plugin

[Github](#)[Issues](#)

**oBill Release App**

The release app is a service that provides an API for the build platform (IBP2) to facilitate the development, branching strategy, continuous integration, and release of various artifacts in the oBill platform.

Python Release Django Git

[Github](#)[Issues](#)

**CUI Conversation Designer**

A chat bot authoring environment for rapid bot development and testing. It allows the creation of dynamic conversation fulfillment flows based on rules and intent matching capabilities supported by commodity NLU providers, i.e. Amazon Lex and Google Dialog Flow.

Javascript AI NLU React CUI

[Github](#)[Issues](#)

**automation-for-humans**

Converts english statements to automation.

automation NLP english python selenium

[Github](#)[Issues](#)

**BlackFlower**

The BlackFlower exploration and research platform. Combining the capabilities of Journaled Objects and Named Data.

journaled objects named data object oriented programming

[Github](#)[Issues](#)

**Turbo App Android**

This is the source repository for the Turbo Android app, supporting both phones and tablets.

Android Kotlin Java

[Github](#)[Issues](#)

**Turbo App iOS**

This is the repository for the Turbo iOS app, supporting both iPhone and iPad.

Swift

[Github](#)[Issues](#)

# Rewards



## Rocio Montes

Staff Software Engineer, Open Source and Open Contribution Leader [Edit](#)

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Main Photo






### ACHIEVEMENTS











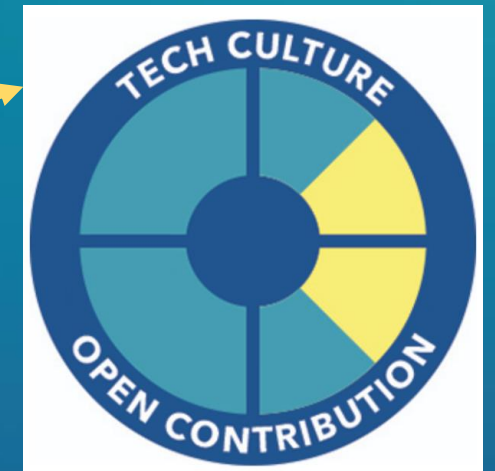



REPORTING STRUCTURE

STYLE OF INFLUENCE 

MORE INFORMATION

## Badge of honor





# Everyone benefits



## Software engineer

- Empowered to contribute = I can make an impact every day, “pride”
- Decrease “wait times” from other teams who “own” the code
- Develop new skills = investing in my craft



## Customers

- Use products that are “delightful” and irreplaceable
- When there are customer problems, the fix is quickly delivered



## Business

- Speed to delivering high quality products and features to customers
- Higher engagement from technologists = retention

# Resources/inspiration



## Community

### **“HERD” by Mark Earls**

Inspired us to tap into our “social” nature to change behavior



## Model

[www.madewithcode.com/community/](http://www.madewithcode.com/community/)

Inspired us to inject fun in everything we do - acts as a catalyst to open discussions and partnerships ... also taught us the importance of sharing with others



## Inner Source

<http://innersourcecommons.org/>

Overview of inner source principles



## Change Mgmt

### **“SWITCH: How to change things when change is hard” by Chip Heath & Dan Heath**

- Provide clear direction
- Engage people’s emotional side
- Shape the path (path is the situation)

Please remember to complete the session  
survey in the mobile app.

THANK YOU  
YOU CAN *FOLLOW US*

 @socialac

 @montes\_roxio



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