QEMU Community Growth Through Open Source Internships

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Why?

QEMU participates in 2 open source internship programs

- 6 years of participation
- Many community members involved as mentors

But we rarely talk about it...until now

- To introduce more mentors to the program
- To encourage applicants to apply
- To share experience and reduce bus factor
What are Open Source Internship Programs?

Paid, full-time, remote work internships with open source projects

Google Summer of Code 2016
https://g.co/gsoc

https://www.gnome.org/outreachy/
Our Goals

Get new contributors

Raise profile of our community

Give back to open source

Fun & stimulating work
Participation Timeline

First GSoC
4 interns
2010

GSoC
with libvirt
9 interns
2013

GSoC
6 interns
2014

GSoC & Outreachy
9 interns
2015

GSoC & Outreachy
7 interns
2016

First Outreachy
1 intern
2014

2012
Not accepted into GSoC

libvirt
Interns 2010-2016 (37 people)
Inside Open Source Internship Programmes

The Definitive Guide

O RLY?

Loretta Ellen
Stakeholders Overview

Internship Program

- Register
- Pay stipend

Organization Administrator

- Find & support
- Help & evaluate

Intern

Mentor
Internship Program Phases

- Register with Internship Program
- Application
- Join mailing lists & IRC
- Community Bonding
- Coding
- Interviews
- Check out code & build
- Evaluation
- Weekly meetings
Mentor Tasks during Application Phase

1) Propose project ideas
2) Discuss custom ideas (if any)
3) Answer questions about project ideas
4) Interview top candidates
5) Select intern (if any)
What makes a good Project Idea?
Better project ideas, higher chance of success

Attributes to look for:

- **Well-defined** – scope is clear
- **Self-contained** – has few dependencies
- **Uncontroversial** – acceptable to the community
- **Incremental** – produces deliverables along the way
Devilish Coding Exercises
Illustrated Guide

O RLY2

Shayne Fraser
How we Interview

Coding exercise (30 min)

- Is this person fluent?
- Real-world coding ability:
  - Memory management
  - Pointers
  - Error handling
- NOT a trick question
- NOT writing well-known data structure

Discussion (30 min)

- Technical topics from coding exercise
  - How do they react to review?
  - Can they reason about performance?
- Their technical background and projects
- Their open source experience
- Answer questions about internship
Mentor Tasks during Coding Phase

1) Weekly meetings
2) Review patches
3) Answer questions or help debug

~5 hrs/week
Meetings That Go On Forever

Executive Edition

O RLY?

Peers Marino
The Importance of Communication

- Projects that fail usually involve lack of communication
- Weekly meeting
  - Discuss & debug tricky issues
  - Progress update
  - Administrativia
- IRC, mailing list, VoIP chat
Co-mentoring makes life easier

- Two mentors instead of just one
- Faster response to intern questions
- Coverage during downtime or vacation
- Less pressure on mentor to always be available
How to become a Mentor

- Requirements:
  - Regular contributor
  - Can spend ~5 hrs/week
- Think of project ideas
- Contact me:
  - Google Summer of Code – February
  - Outreachy – February and September
Thank you

- QEMU Google Summer of Code pages: http://qemu-project.org/Category:GSoC
- My advice for applying as an intern: http://goo.gl/gPj0yR
- My nick is ‘stefanha’ on #qemu irc.oftc.net
- More on QEMU: http://blog.vmssplice.net/