

Hacking the Academic Experience



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**Even with a CS degree, I
didn't *really* learn how to
program until I was doing a
Masters in Museum Studies
at the Louvre.**

Academia && Hacking

1. Teaching Rails at Columbia
2. Developing a hacker-centric curriculum
3. Getting involved as a hacker

The term, **hacker**, is a shibboleth

We will use the term in its positive incarnation.

Both a traditional and untraditional background

10gen ruby driver team

NYC startup

Masters at Louvre museum

IBM

Computer Science/Art History at Columbia

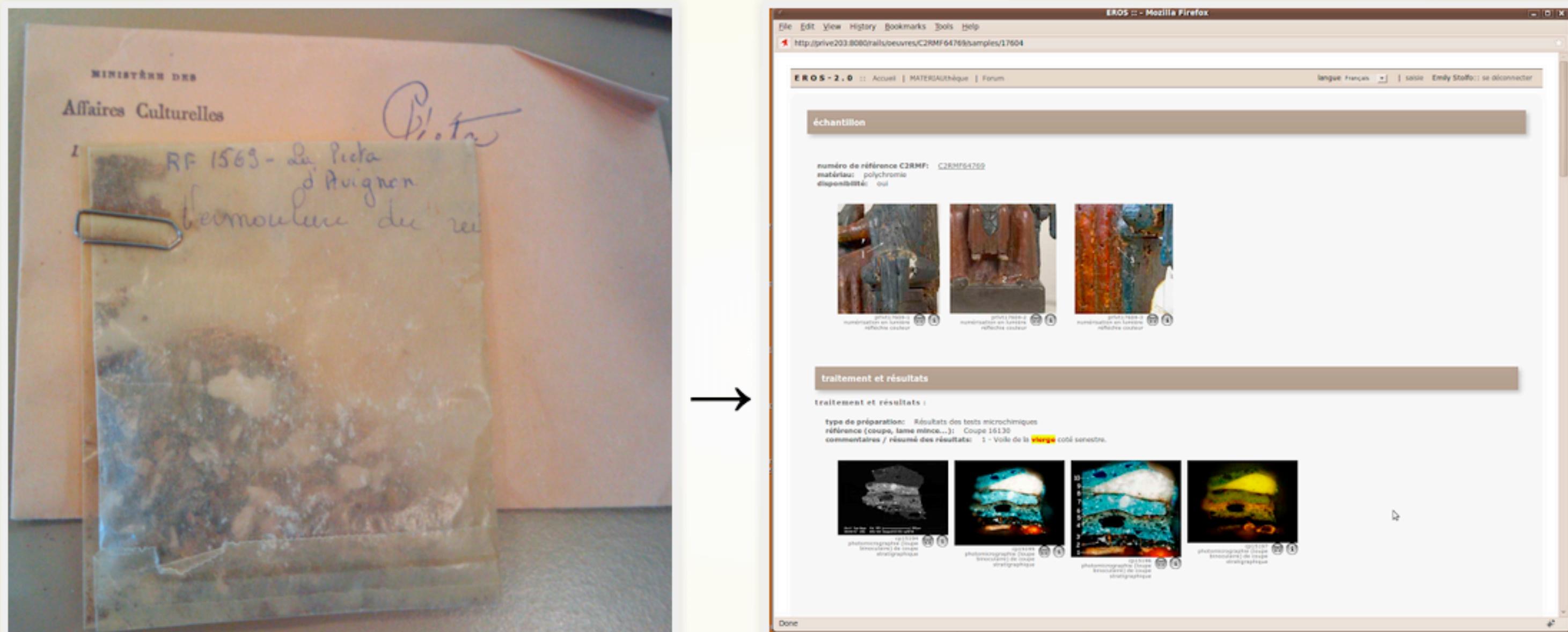
A unique perspective allows me to identify the holes.

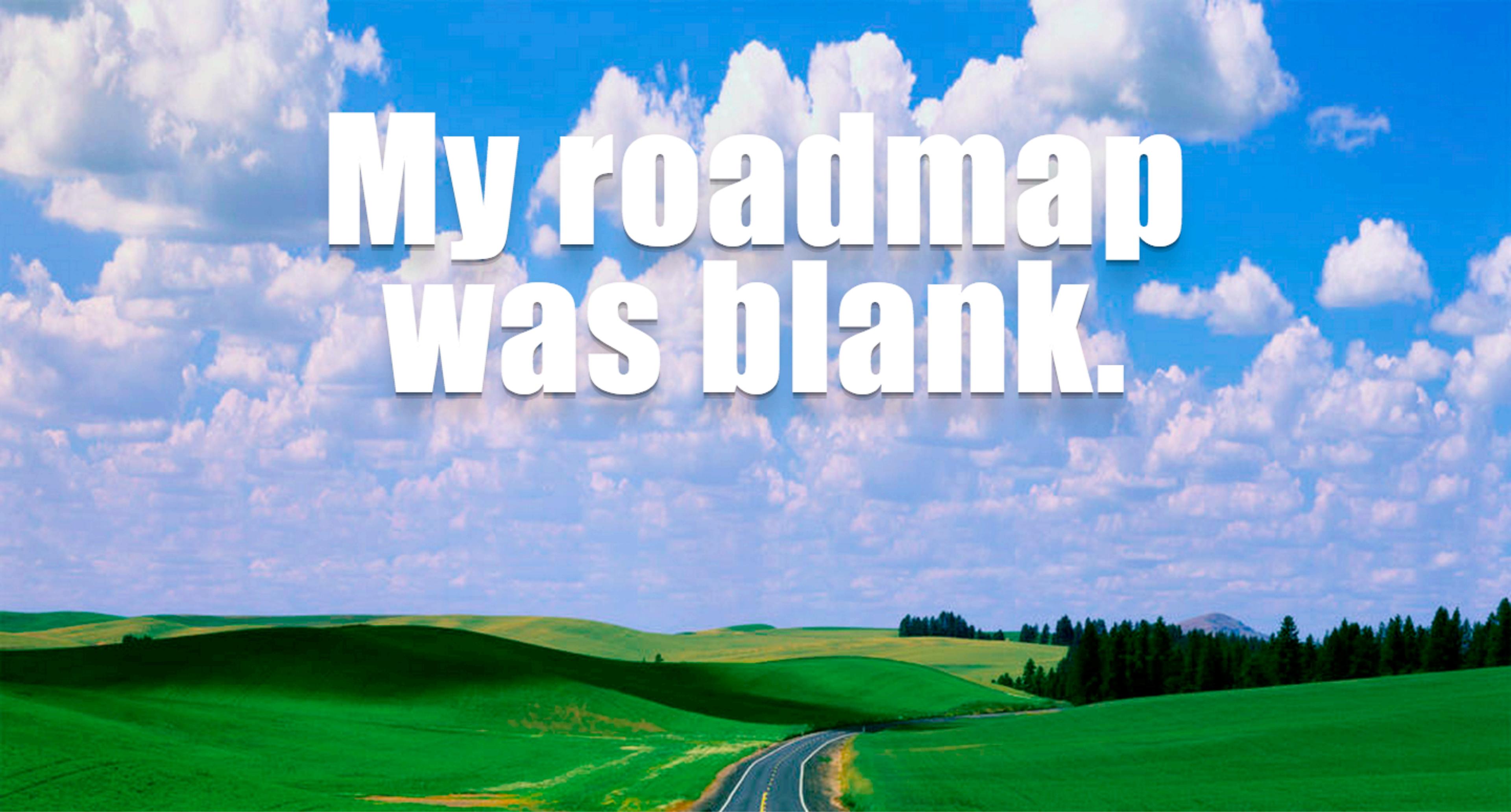


source: Why's (Poignant) Guide to Ruby

Academia and hacking shouldn't be mutually exclusive.

The Louvre materials project





My roadmap was blank.



**My only option
was to find
resources
myself.**



A few particular things allowed me to be successful

- Example project(s)
- Internet
- Trying things out
- Books
- Colleagues
- Community
- Users

(Geographical and physical resources were limited.)

**This experience prepared
me to some extent for the
job that I then took in NYC.**

I then needed to become a full-stack hacker
(really quickly)

The Rails class became an opportunity for me to help fill in the holes.

I made some assumptions when first teaching at Columbia.

As an "agile teacher", I've revamped the curriculum after making several observations.

**This type of
class is rare,
and not just at
Columbia.**



But should academic curriculum reflect industry trends?

Foundations of Computer Science are essential.

A generation in tech is arguably shorter than one in other subjects.

Developing a hacker-centric curriculum

A hacker-centric curriculum is critical in academia, given the tech job market.



The CS program at Columbia teaches essential knowledge but misses some needed on the job.

“I had an internship last semester and I had to learn CSS, Javascript, Jquery, HTML, Python, Ajax all at once. It was a lot to take in but I definitely learned tons. I do wish I had some background going in since I felt so unprepared at the start.”

**As open source
contributors, we
can contribute
more than just
code.**

5 Hacker Habits

(and how I tried to teach them)



**1) Treat the
internet as your
textbook.**

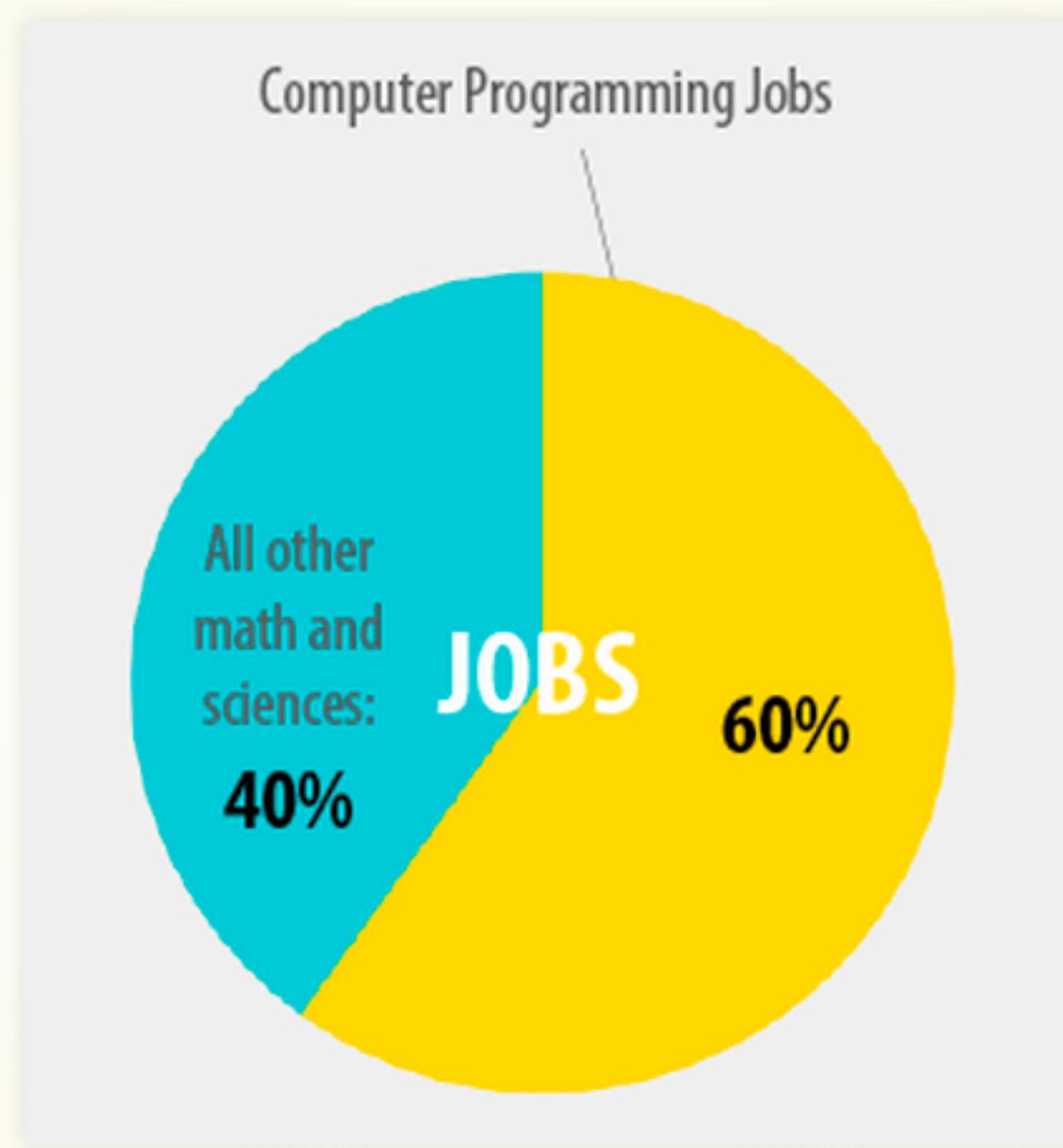
**2) Able to debug
code you didn't
write.**

**3] Build
something to
solve a real-life
problem.**

4) Engage with the community.

**5] Think
critically about
code.**

The number of opportunities in tech is growing.



source: code.org

**We need to
bring hacking to
academia and
academia to
hacking.**

Getting involved as a hacker

There are many opportunities to teach

Skillshare

General Assembly

YouTube

TEALs

Hackety hack lessons

Podcast

Rails Girls

There are many benefits

Your potential colleagues will be better prepared.

You can fill in the holes in academic CS curricula.

No better way to reinforce your knowledge.

Strengthen your profile.

Build your network.

karma++