



How GitHub Builds Products

What is GitHub?

Best place to design, build,
and ship software

We started out just hacking
on problems that we had
with developing software

We've kept that mentality;
you should be able to work
on cool things that interest
you

This is how we hire

This is how we move between
roles

This is how we build products
and software

Lesso

n 1:

Use the community for
what they're good at

"Simple: at GitHub we
hire 'The Girl or Guy
Who Wrote X,' where X is
an awesome project we
all use or admire.
What's your X?" – Chris
Wanstrath

We built a lot of GitHub on
existing open source

Or we open sourced almost
everything we built in the
process

Grit

Grit

Ernie

Grit

Ernie

Resque

Grit

Ernie

Hubot

Resque

Grit

Ernie

Boxen

Hubot

Resque

Grit

Ernie

Boxen

Hubot

Albino

Resque

Grit

Ernie

Boxen

Hubot

Albino

Resque

Akavanche

Grit

Ernie

Boxen

Hubot

Albino

Resque

Akavanche

Linguist

Grit

Ernie

Boxen

Hubot

Albino

Resque

Akavanche

Shimmer

Linguist

Grit

Ernie

Boxen

Hubot

ETC

Albino

Resque

Akavanche

Shimmer

Linguist

We need these projects to
run our company, why not
share them!

Now we can see who would
work on them with us

We not only open source things, but use others' open source as well

Rails' success comes from the community, how much people loved it, and how much they want to use it

People within the
community either worked on
Rails itself, or gems that
became essential for many
projects

They sound like
people we can get
along with!

It's also super easy to evaluate their code and what working with them would be like by seeing their commits on existing projects



TECHNOWNOW

Rick "Rick Danger" Olson

EENIE



attachment_fu

attachment_fu
acts_as_authenticated

restful-
attachment_fu authentication
acts_as_authenticated n

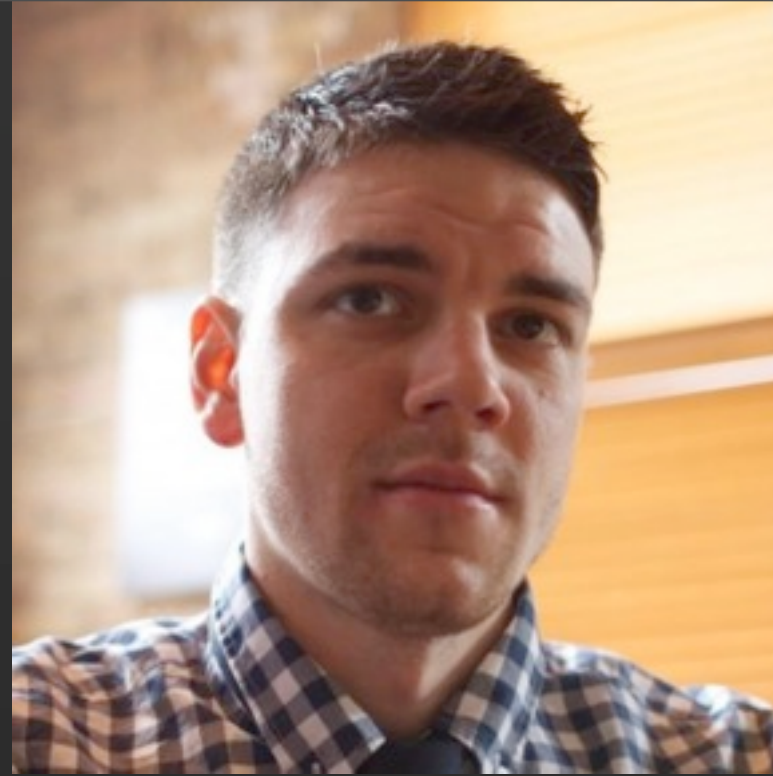
attachment_fu
acts_as_authenticated

restful-
authentication
Beast and
Mophisto

attachment_fu restful-
acts_as_authenticated authentication
Beast and
Mophisto

Rails

Early work within the rails community made him stand out. His code interested us and we used some of it too!



Josh Peek

Josh

rack

rack

rack-mount

rack

rack-ssl

rack-mount

rack

rack-ssl

rack-mount

tilt

rack

rack-ssl

rack-mount

tilt

Rails

Not only were they working on the tools that drove our company, they contributed to employees' open source projects as well

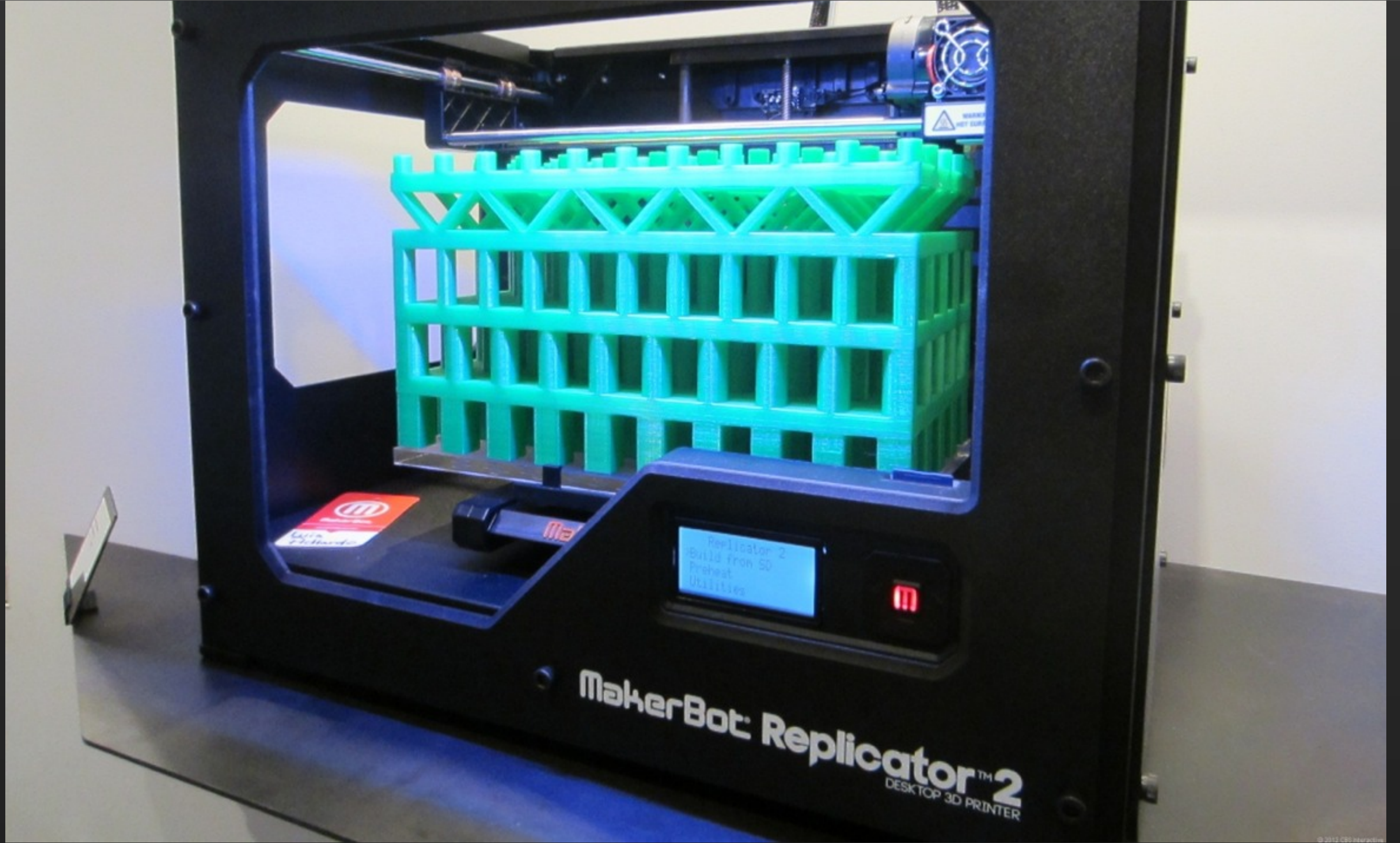
If you're going to hire people to work on your products, it helps if they're already working on open source parts of that product

Lesso

n 2.

Let your employees find things they love working on, and see them grow into roles they love

3D printed objects







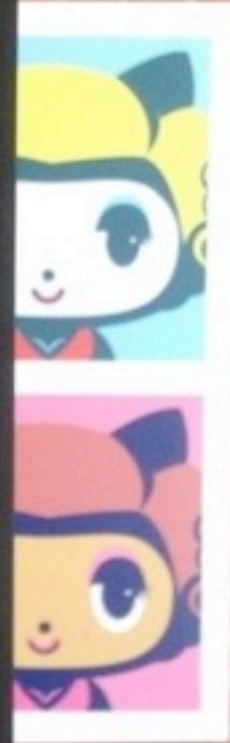
"But we don't have a 3D printer. So we should get one. That's everything."

–Mike
Skalnik

2 weeks later a printer
showed up

"This is great! I can print
real things!"

SKALNOOK
MOD
ROOM





 OPEN

Things slow down when
you have over 180
employees trying to
print something



Mike Skalnik (@skalnik)
proposes coming into
the office on a Saturday
to work on Hubot
integration



Slava Shirokov
(@sshirokov) also came
into the office to help

Hubot integration
done, camera set up
to view it, amazing

What if we could
collaborate on these
models before we
finalize them?

What platform would be
good to collaborate on?

Renderer

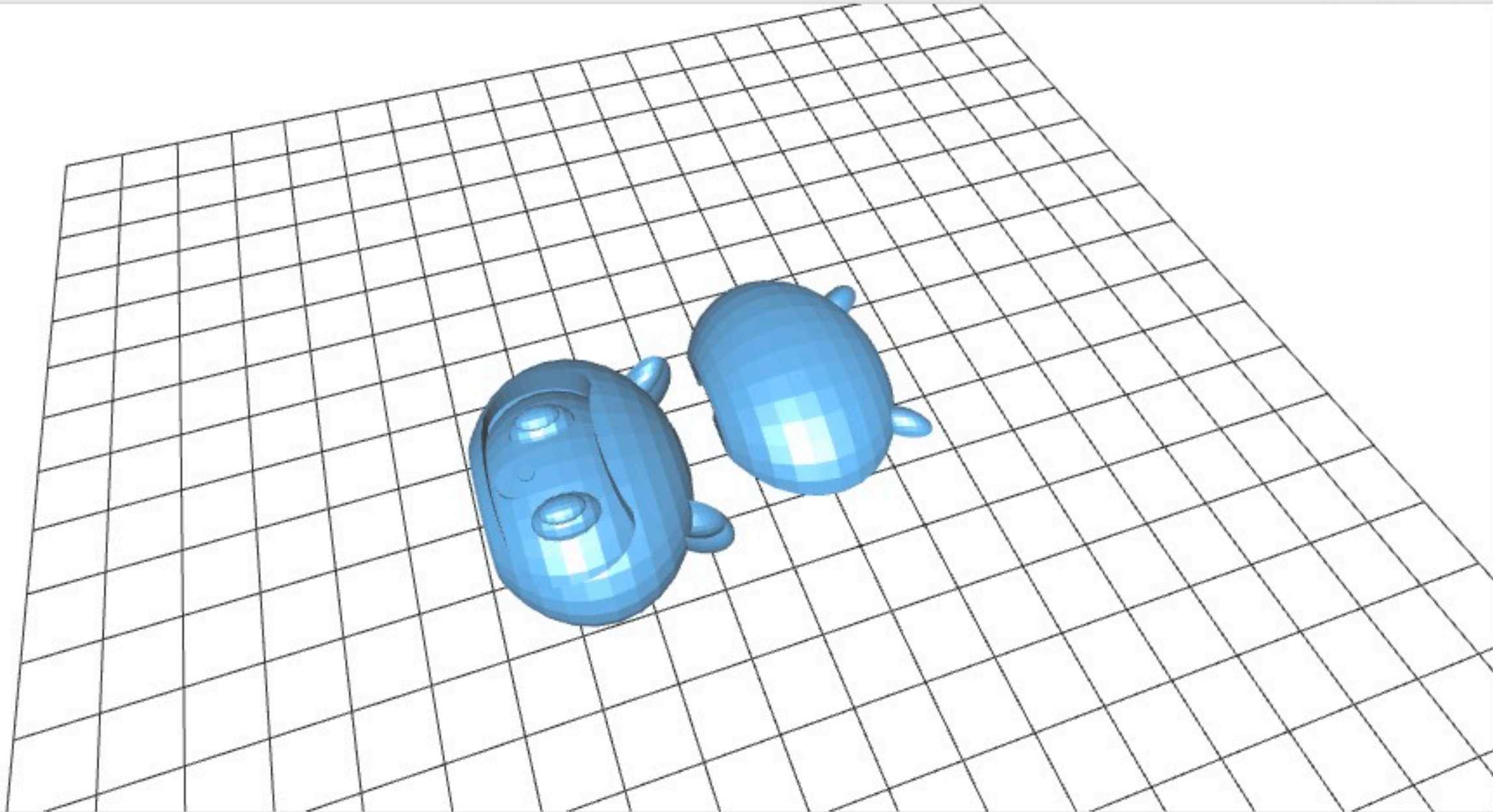


file | 284.884 kb

Raw

History

Delete



Wireframe | Surface Angle | Solid

A few people had an interest in 3d models; it turned into rendering on GitHub for everyone

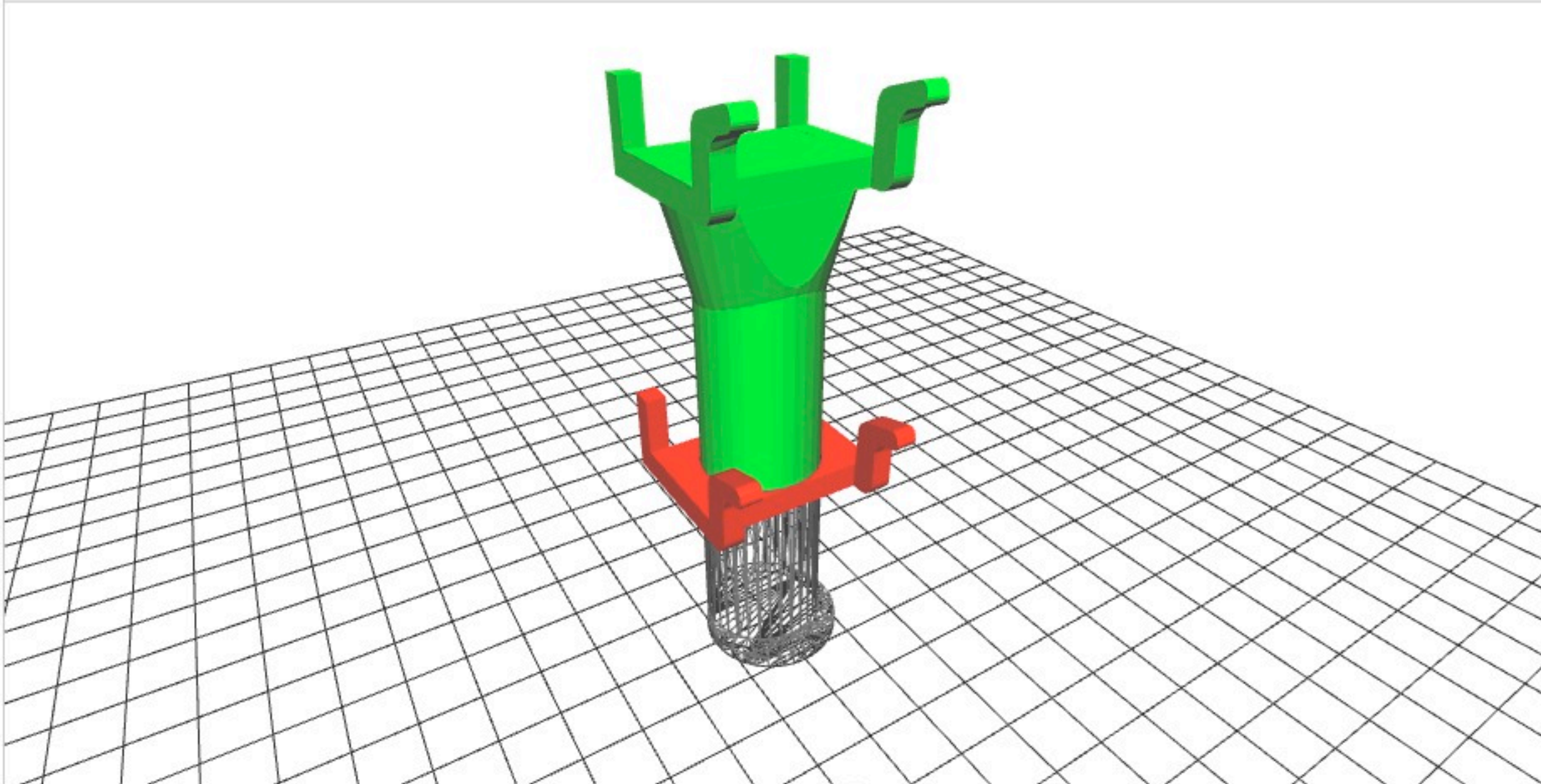


Sean Bryant (@sbryant)
has been helping a lot
lately too.

BIN ■■■■■

stl/peg-board-spindle.stl

[View file @ 7a1039f](#)



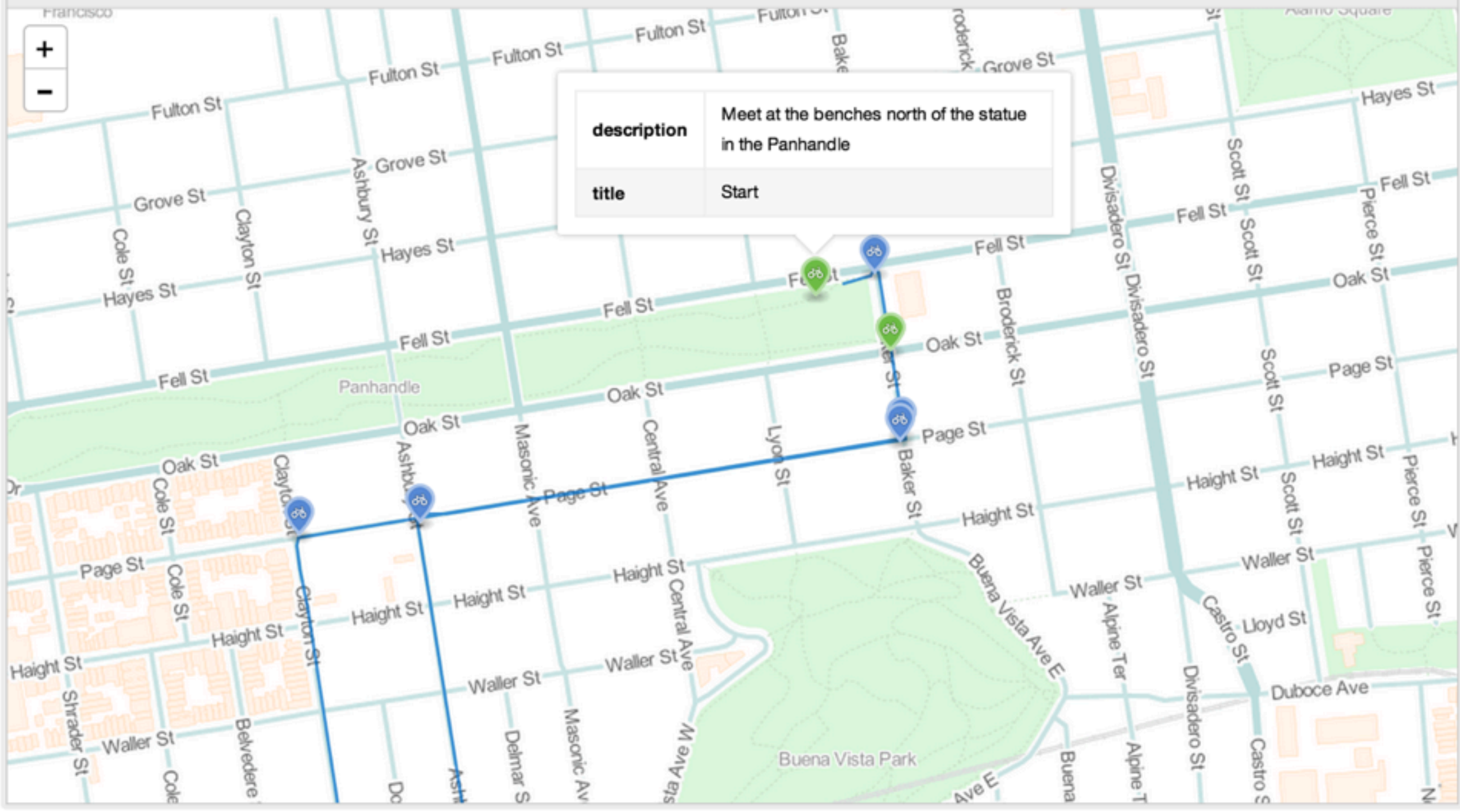
Revision Slider | **Highlight**

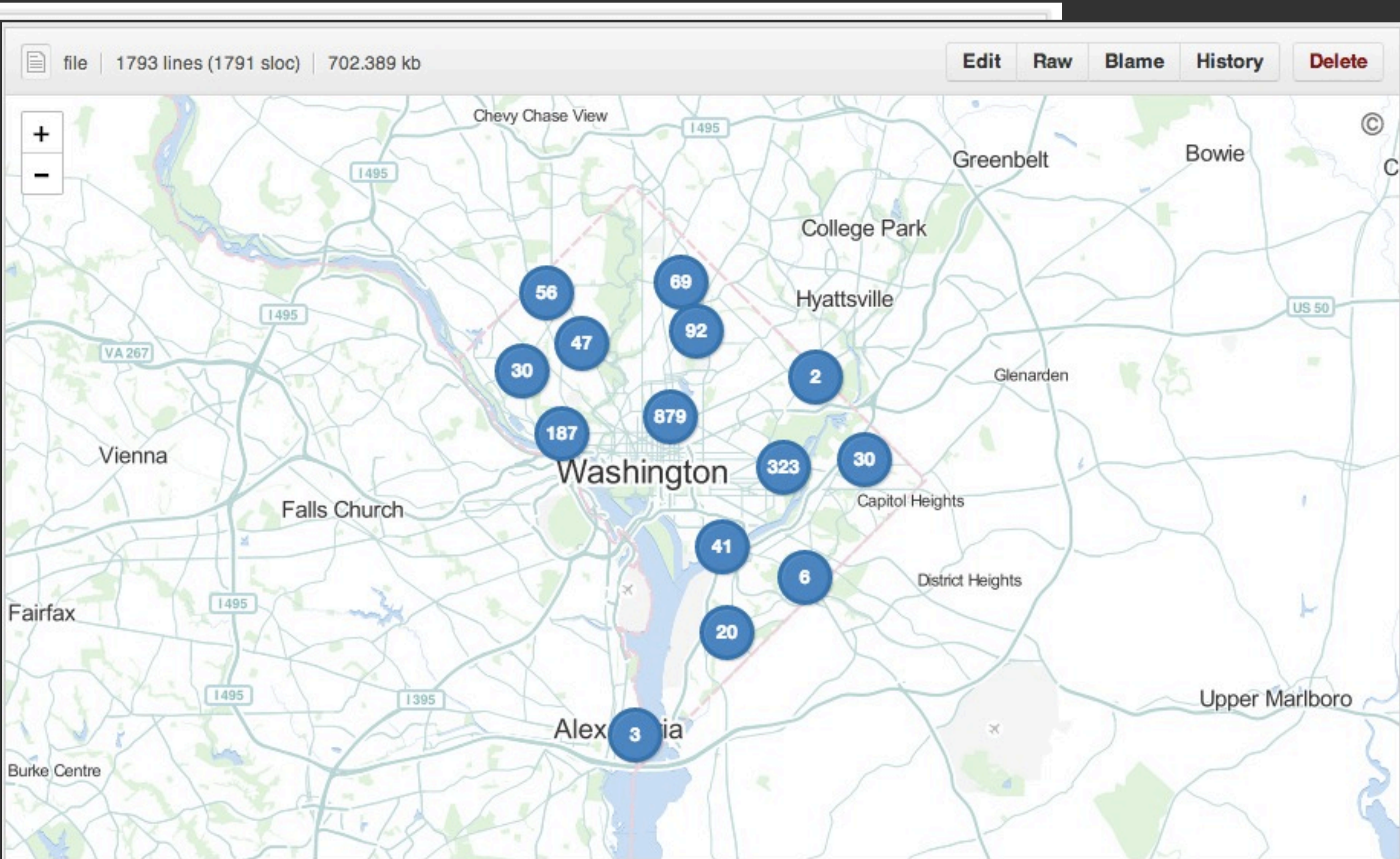


Add Ben Balter
(@benbalter). "Let's
work with MapBox to
show map data on
github.com"

Showing maps in repositories

description	Meet at the benches north of the statue in the Panhandle
title	Start







file | 131 lines (130 sloc) | 84.585 kb

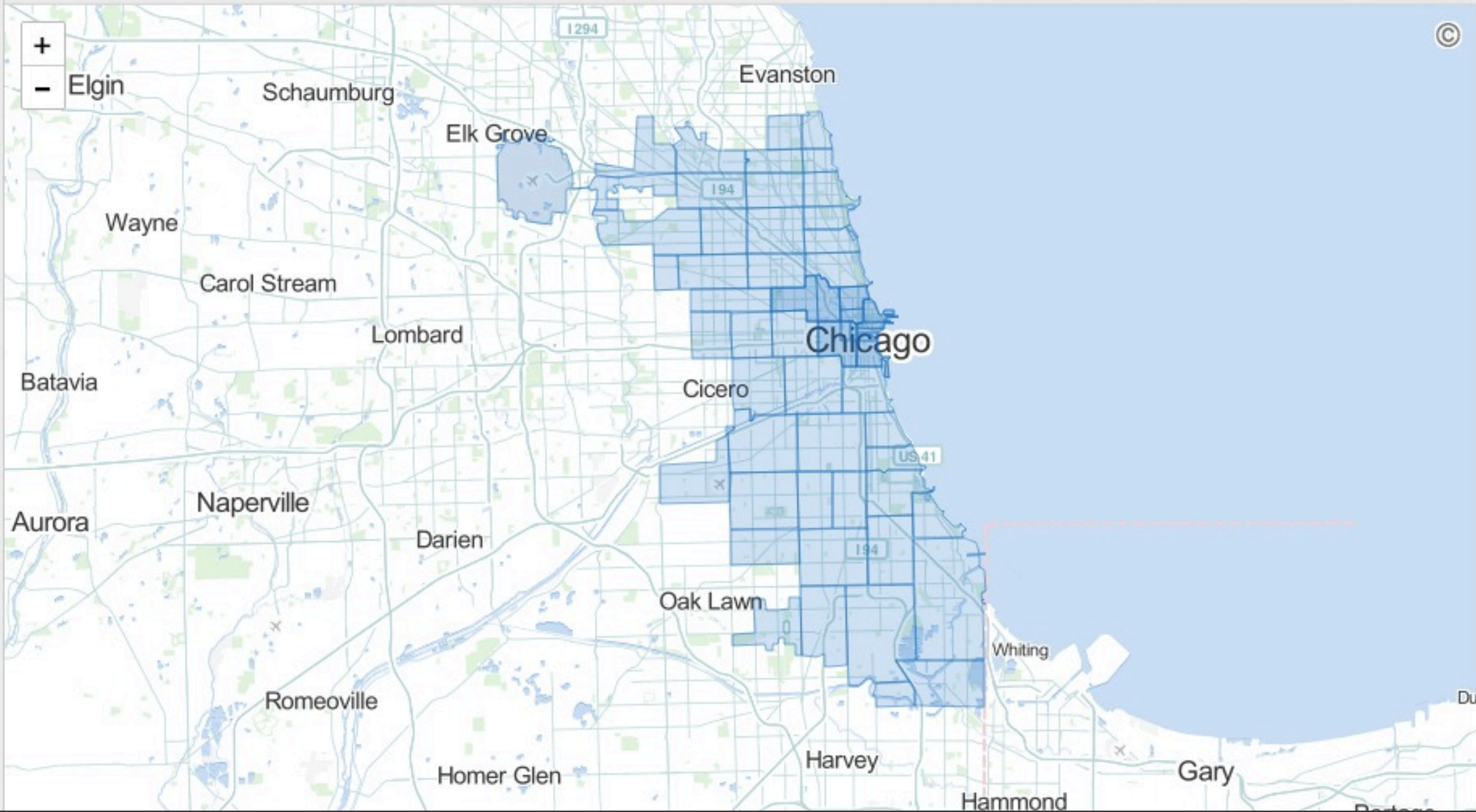
Edit

Raw

Blame

History

Delete



Points of interest in a city

Points of
interest in a
city

Good wifi
locations

Points of
interest in a
city

Political
districts

Good wifi
locations

Points of
interest in a
city

Political
districts

Good wifi
locations

Fire hydrants

Small hack projects can
turn into amazing new
features

Let your employees
work on things that
interest them. They'll
pour so much passion
into it.

Lesso

See a problem within an app you use, start to fix it slowly. Then iterate often and turn it into a full product



We love building things
ourselves

You don't always have
the luxury of time to do
this

You don't always have
the luxury of time to do
this

It may end up cheaper
to use an existing
product

As you grow, this may start
to not be true

You'll notice pain in
using it.

And you'll deal with it

But then you can't deal
with it

We started making
really small changes.
Just to increase some
efficiency.

Efficiency went up for a while, then our user base grew faster and we had more issues



Well, they have an API.
Why don't we use that?

Still using them as a
database and
application server

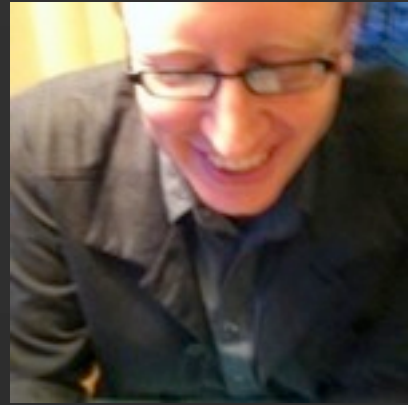
Still have some
problems

Maybe we could ask the
company for more help

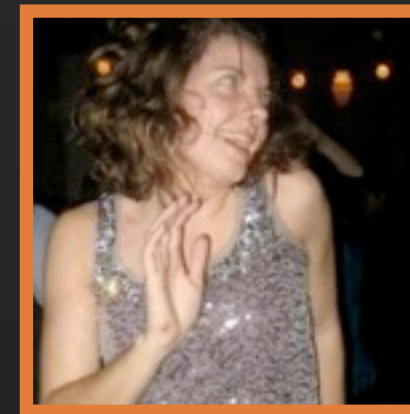
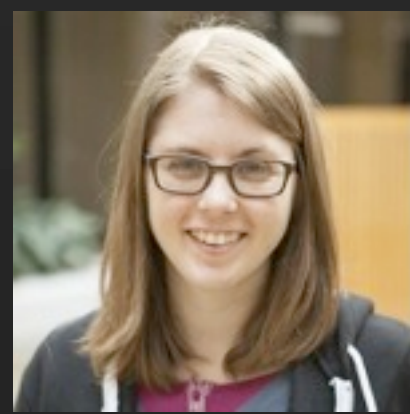
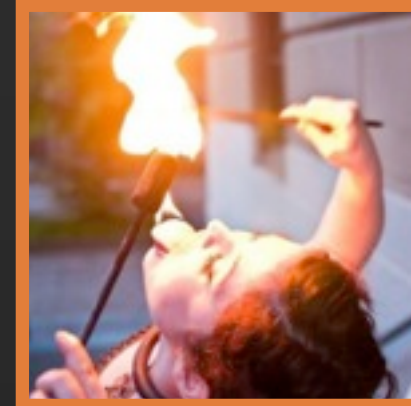
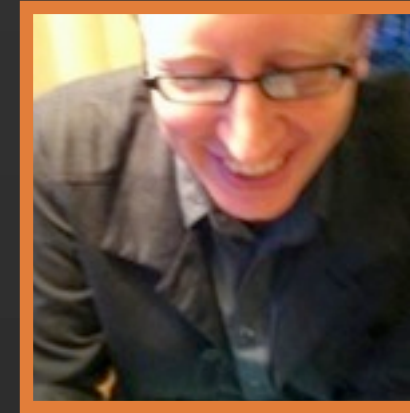
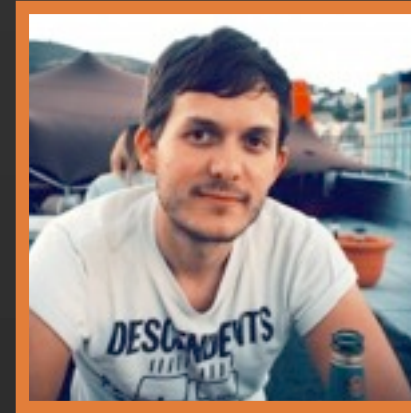
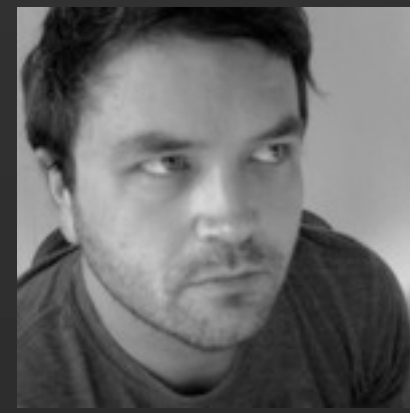
Maybe we could ask the
company for more help

Eventually we would want
customization

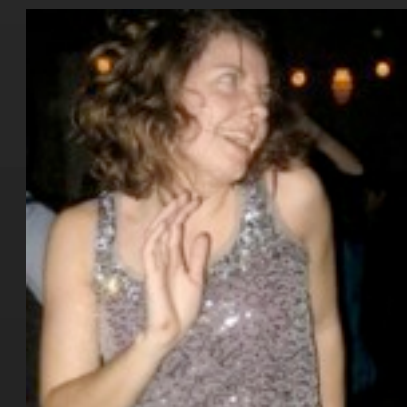
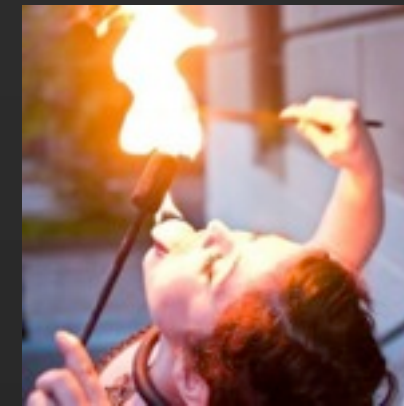
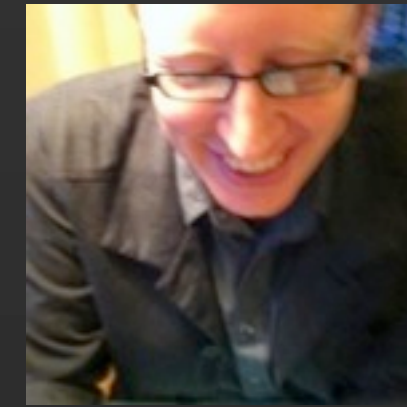
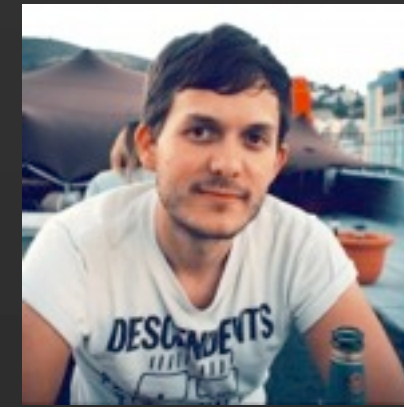
We realized we should
just hire more people
for this



Support



Developers



It may take a few iterations,
but you can have your cake
and eat it too

Build for need as it
arises instead of just
putting all your eggs in
one basket from the
start

How does GitHub Build Products?

Find people who share
your interest or are
already helping you

Allow people to
explore new horizons
and find new interest.
It'll pay off for you in
the end one way or
another

Start small, iterate fast,
and keep doing the
smallest thing possible
to ship something that
works

Start

Building
Thank you

brent@git
hub.com

Brent
Beer

@brntb
eer

References

Slides – <http://bit.ly/GH-products-aar13>

Who we hire – <http://ozmm.org/posts/who-we-hire.html>

Open Source Almost Everything – <http://tom.preston-werner.com/2011/11/22/open-source-everything.html>

How to Open Source a Project – <https://gist.github.com/atmos/6631554>