Launching Your Career in Big Data

Sujee Maniyam

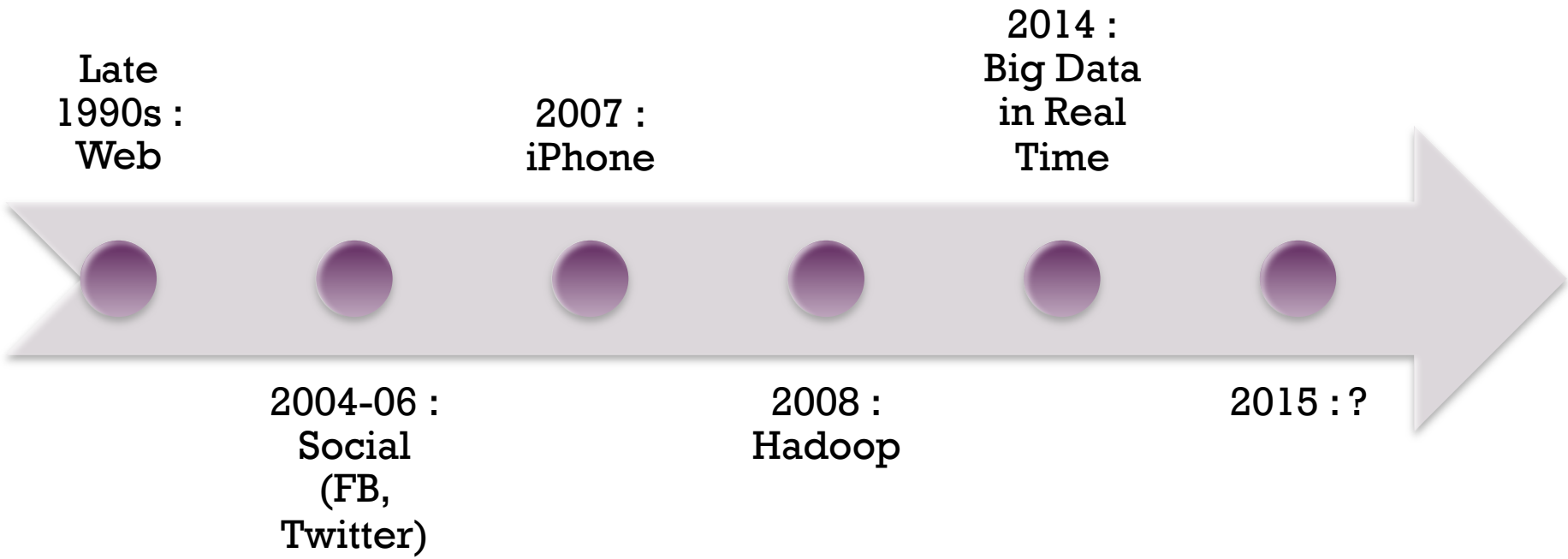
ElephantScale.com

Sujee@elephantscale.com

Who Invited This Guy?
Hi, I am Sujee Maniyam ☺

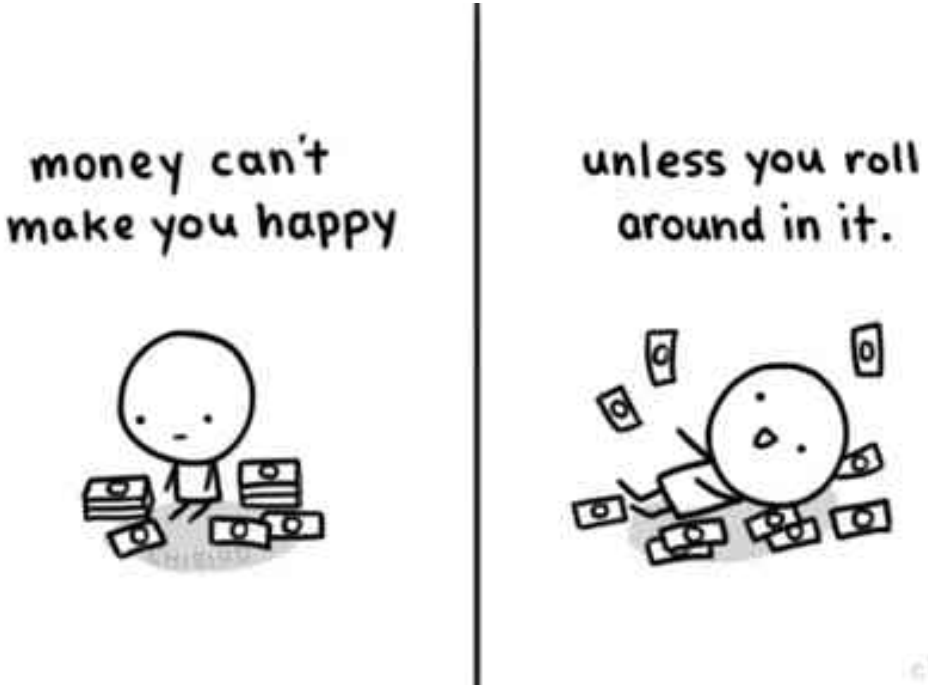
- 15 years+ software development experience
- Consulting & Training in Big Data
- Author
  - "Hadoop illuminated" open source book
  - "HBase Design Patterns" coming soon
- Open Source contributor (including Hadoop) http://github.com/sujee
- Founder / Organizer of '**Big Data Guru**' meetup http://www.meetup.com/BigDataGurus/
- http://sujee.net/

Riding The Technology Wave



Big Data Fad Or Real?

- It is very real !



Big Data Job Trend

Hadoop Job Trends

Scale: **Absolute** - Relative

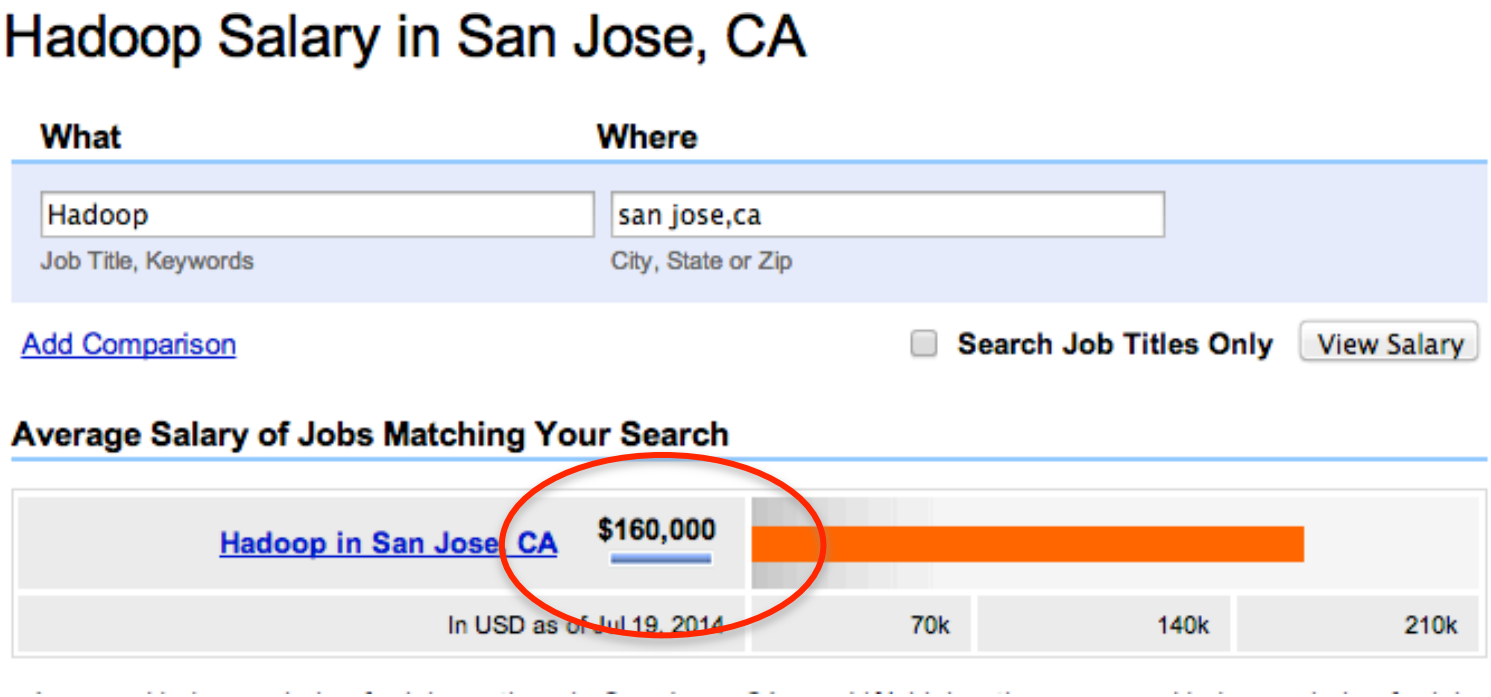
Indeed.com searches millions of jobs from thousands of job sites.
This job trends graph shows the percentage of jobs we find that contain your search terms.

- **Email to a friend**
- **Post on your blog/website**

Top Job Trends

1. HTML5
2. MongoDB
3. iOS
4. Android
5. Mobile app
6. Puppet
7. **Hadoop**
8. jQuery
9. PaaS
10. Social Media

… and $$$


Hadoop Salary in San Jose, CA
What
Where
Hadoop
san jose,ca
Job Title, Keywords
City, State or Zip
Add Comparison
Search Job Titles Only
View Salary
Average Salary of Jobs Matching Your Search
Hadoop in San Jose, CA
$160,000
In USD as of Jul 19, 2014
70k
140k
210k

Audience For This Talk…

Developers

This Doesn't Work….

- Quit Job on Friday
- Attend Big Data Bootcamp over the Weekend
- Start as a Big Data Developer on Monday
- ☺ sorry !

Road Map For Launching Your Big Data Career

- (1) Learn
- (2) Network
- (3) Be Known
- (4) get hired

I don't always analyze data

But when I do, I prefer a lot of it

Big Data / Hadoop Jobs

	Dev Ops / Admin	Developer	Data Scientist
What you do?	Keep things running	Build applications	Make sense of data
Skill sets	- Linux admin - Scripting (python, shell) - Puppet / chef - Mad trouble shooting skills	- Java, Python, Ruby… - Distributed systems - Linux - Hadoop / NoSQL concepts	- R, python - Statistics, math - Domain knowledge (insurance, banking) - Big Data tools
Best fit for	Admins	Developers	Analysts

Step (1) Learning

- Preferred Option : learn on your current job ☺
  - Take a training class
  - Do a Project
- If That is not possible (dead end job / employer)
  - Learn on your own

Learning 1 : Learn

- Books
  - So many,
  - Start with 'Hadoop' by Tom White
  - Also checkout our free, open source book : 'hadoop illuminated' ☺
- Tutorials (Cloudera / HortonWorks)
- Blogs (Major vendors)
- Webinars
  - Free, watch at your own time
  - Signup at Cloudera / HortonWorks / DataStax
- Meetups
  - Plenty to choose from
  - My meetup : Big Data Gurus in San Jose ☺

Learning 2 : Practice

- Hands-on a must !!!!
- Get a Hadoop VM / Sandbox from a vendor
  - Easiest way to get Hadoop running
  - Free !
  - Every thing pre-installed and configured… ready to go!
- Use Hadoop version 2.x
  - Cloudera 5.x series
  - HortonWorks 2.x series

Learning 2 : Practice

- Most VMs come with some tutorials pre-installed.. Do them
- We maintain an open-source Hadoop labs on github
  - https://github.com/elephantscale/HI-labs
  - 50+ labs on HDFS / MapReduce / Pig / Hive
- Where to get data?
  - http://hadoopilluminated.com/hadoop_illuminated/Public_Bigdata_Sets.html
  - Amazon hosts some big data sets

Learning 2 : Practice ++ How to stand-out

- Need more than 'hello world'
- Practice running Hadoop as a cluster
  - Use cloud providers like Amazon, Rackspace
- Cost ?

# of instances		**5**	
instance	**price**	**1 hr**	**6 hrs**
m1.medium	$0.09	$0.45	$2.70
m1.large	$0.18	$0.90	$5.40

Challenges In Self Learning

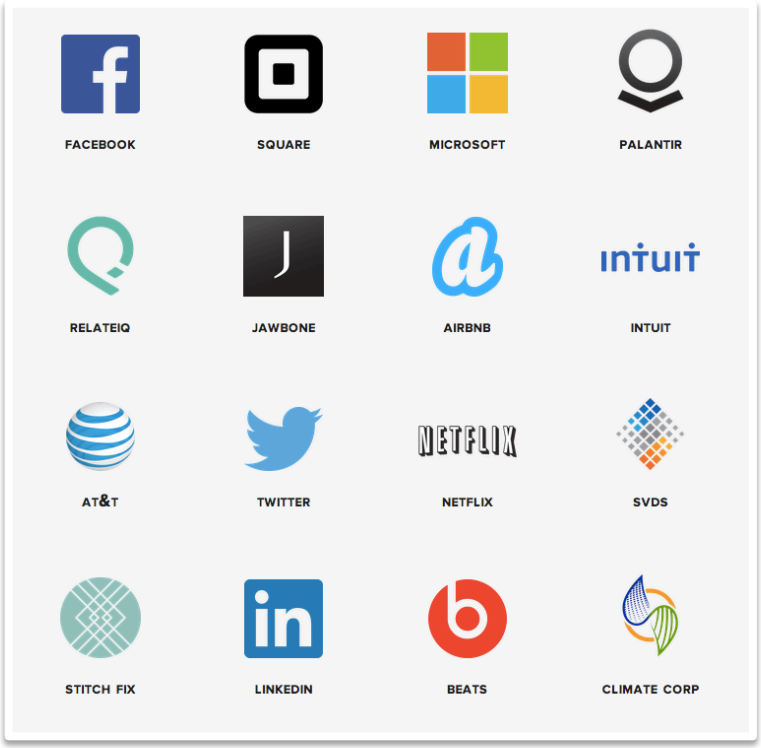
- Takes up a lot of personal time!
- Can loose motivation
  - Pair-study with some-one
  - Motivate / teach each other

Very quickly….

Insight Data Engineering Fellowship (I am mentor!)

- 6 weeks, full time, professional fellowship
- **Completely free** for students ! (yes, really)
- Mentored by top industry experts (Nathan Marz – creator of Storm, Databricks– creators of Spark ..etc)
- Learn cool Data Engineering tools
- Build an awesome project
  - Motif finder at large scale
  - Inspect / visualize BitCoin transactions in real-time
- Demo to top companies (Netflix, Yelp, Facebook, Square)
- Get hired !

INSIGHT



Insight Data Engineering
Fellows Program

InsightDataEngineering.com

- 2 sessions done in 2014
- Next session : Jan 2015
- Application deadline : Oct 27

Big Data Skill Chasm

Do I Need a Certification?

- Certifications are good
  - if you have no practical experience
  - Consultant
- Cloudera / Horton Works
- You don't need to take their courses
- Just take the certification exams
  - Reasonably easy with preparation
  - Very affordable (few hundred $)

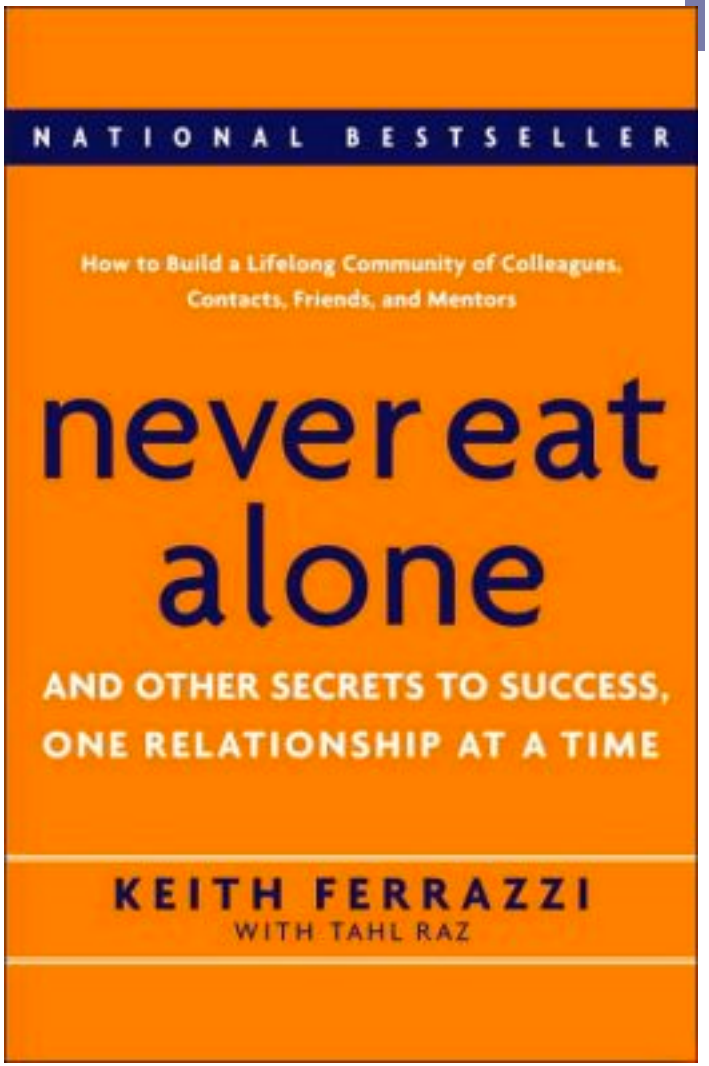
Step (2) Networking

- First get your OWN business card ☺
- Meetups
  - tons of meetup in this area
  - My meetup : http://www.meetup.com/BigDataGurus/ ☺
- Conferences
  - Can be expensive (Strata $3k)
    - Beg some one for a 'visitor pass' ☺
  - Cheap conferences (HbaseConf $400, Hadoop Summit : $500)
    - Money well spent… great connections!

Networking : How To Find Decision Makers?

Networking : Uber Networking Tips

- Read this book ➔
- Soft Networking
  - Become the connector, do intros
  - People will REMEMBER you!
- Volunteering
  - Help to run a meetup / event
  - You will get to know people you otherwise wouldn't meet (Board of directors …etc)



Step (3) -- Be Known

It is not what you know

It is who you know

It is WHO knows YOU !

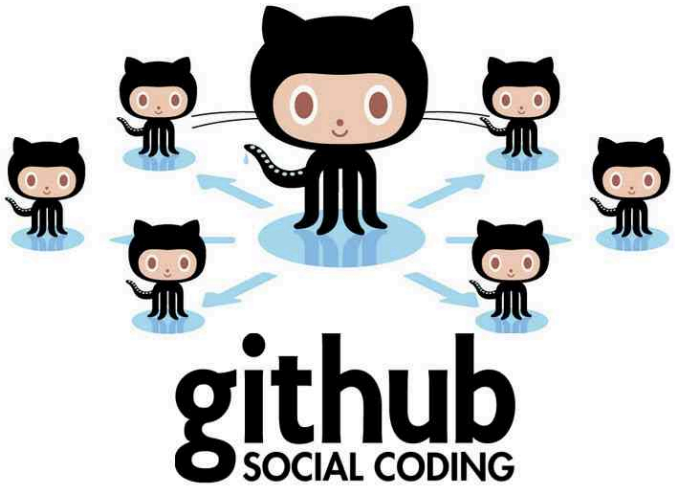
How to Be Known (aka How To Become an Expert!)

- Open Source
  - Huge boost to your resume
- Write quality blogs, articles
  - Lot of magazines wants contributors
- Write a Book
  - We did it on our own – without a publisher
  - 'Hadoop Illuminated' : http://hadoopilluminated.com/
- Speak at meetups / conferences

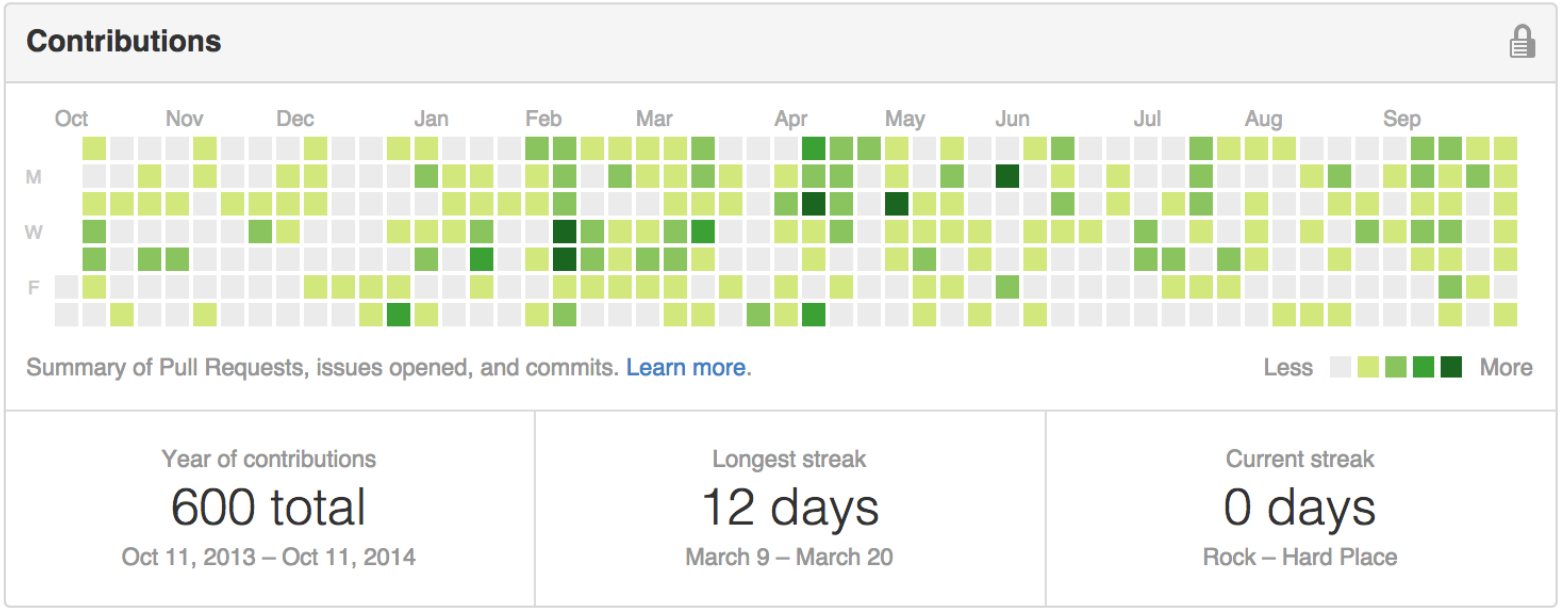
Old Resume


Your Resume
Chris Q. Surname
Contact Information
Objective
Education
Experience
Honors & Activities

Your New Resume



Github activity log (employers check these !)



Open Source Contributions

- Open Source involvement is a 'hot skill'
- Just saying 'I used TomCat' isn't enough ☺
- Open source tells me two things about you:
  - You are passionate about technology (not just b/c this gig pays well)
  - You dedicate your personal time → initiative
- Best option : Get Paid to work on open source ☺ cloudera, linkedin, netflix….
- If not, you can still do meaningful contributions..

How to Contribute To Open Source

- Step 1) Get a GitHub account (free)
- Step 2) Look for open source projects to contribute
  - Hadoop, cassandra, Spark
  - Start fixing bugs ('low hanging fruits')
- Step 3) Starting your own project
  - Has to be unique (not another word count example using Spark!)
  - Solve some thing you know about
    - E.g. : Mark Kerzner – eDiscovery & Hadoop

Personal Story : Contributing to HBase

- [code] Improve benchmarking tool
  - Started as a hobby project
  - Submitted patch
  - Lots help from senior developers
  - https://issues.apache.org/jira/browse/HBASE-4440
- [documentation] improve patch submission process
  - You don't need to be a code-ninja to contribute !!
  - Documentation is badly needed in open source projects
  - https://issues.apache.org/jira/browse/HBASE-5577

JIRA : HBASE-4440

HBase / HBASE-4440

add an option to presplit table to PerformanceEvaluation

Sujee Maniyam added a comment - 30/Nov/11 23:56

patch attached

ramkrishna.s.vasudevan added a comment - 01/Dec/11 02:06

@Sujee

Wait till there not regions in RIT instead of sleep like how we have done in TestMasterFailover

```
log("Waiting for no more RIT");
    ZKAssign.blockUntilNoRIT(zkw);
```

Nicolas Spiegelberg added a comment - 06/Dec/11 02:35

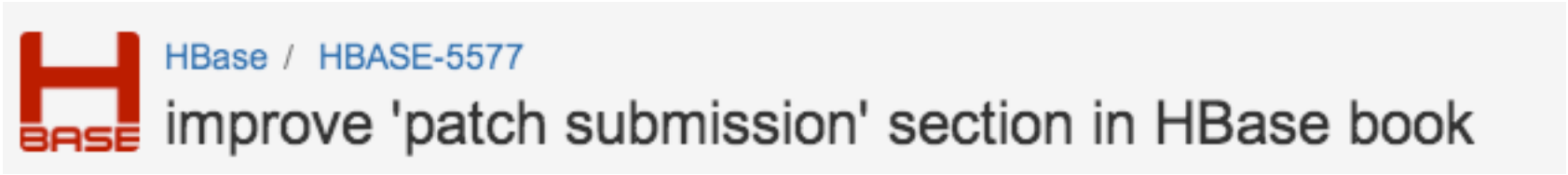
thanks Sujee!

Hudson added a comment - 06/Dec/11 05:53

Integrated in HBase-TRUNK-security #23 (See https://builds.apache.org/job/HBase-TRUNK-security/23/)
~~HBASE-4440~~ add an option to presplit table to PerformanceEvaluation

Tips On Submissions

- **Make it easy for committers**
  - Don't create extra work for them !



Speaking at Meetups / Conferences

- Start with meetups
- Have a unique topic
  - "solving XXX using Spark" ..etc
- Having a popular open source project will help ☺ ☺
- Submit proposals to many conferences
  - You may not get into Strata first ☺
- Pay attention to 'local' conferences
  - SVCodeCamp, Dataweek in SF …etc
- Big Data conference calendar
  http://elephantscale.com/bigdata_conferences

Acing The Interview

- Interviewer : So , have you used Hadoop at your work? What kind of practical experience you have?
- If no, then usually interview ends here
- You :
  Ahem, I haven't had a chance to use Hadoop at work…
  But let me tell you about the open source project I am working on…
  * walk to whiteboard, start drawing, explain …*
  * gets hired ! *

Step (4) Get Hired

Thanks !

Sujee Maniyam

sujee@elephantscale.com

http://elephantscale.com

Expert consulting & training in Big Data