Keeping Up your Technical Skills as a Manager

without annoying your team(s)

Kathleen Vignos | @kathleencodes | #velocityconf

Howdy Managers!

Search GitHub

Pull requests Issues Marketplace Explore

Kathleen Vignos

kvignos

Sr. Engineering Manager at Twitter

Edit bio

Twitter

San Francisco, CA

http://www.twitter.com

Organizations

Overview | Repositories 9 | Stars 2 | Followers 9 | Following 6

Popular repositories

Customize your pinned repositories

react-flexbox-grid
Forked from roylee0704/react-flexbox-grid

A set of React components implementing flexboxgrid with the power of CSS Modules.

JavaScript ★ 1

wired-and-the-rest-api-presentation

Outline for Day of Rest 2016 Presentation

WP-API
Forked from WP-API/WP-API

WP REST API - a JSON-based REST API for WordPress.

PHP

soar
Forked from ScottLNorvell/soar

CSS

hapi-bootstrap
Forked from andianderson522/hapi-bootstrap

my hapi bootstrap for new projects

reveal.js
Forked from hakimel/reveal.js

The HTML Presentation Framework

2014


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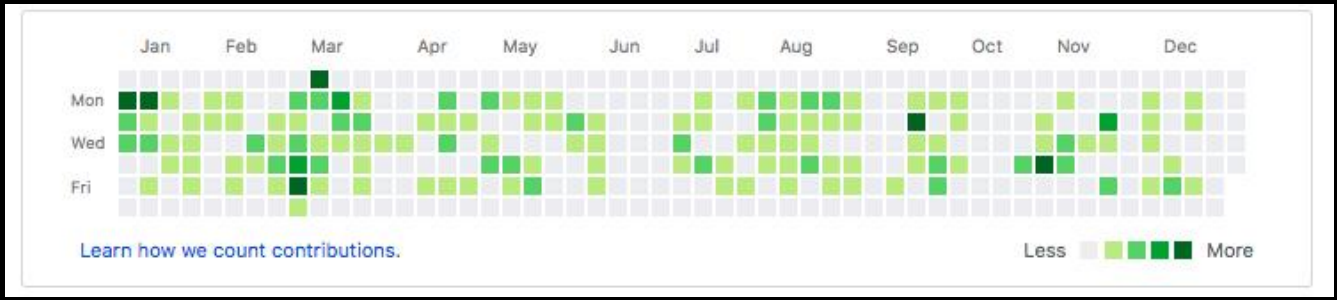
2015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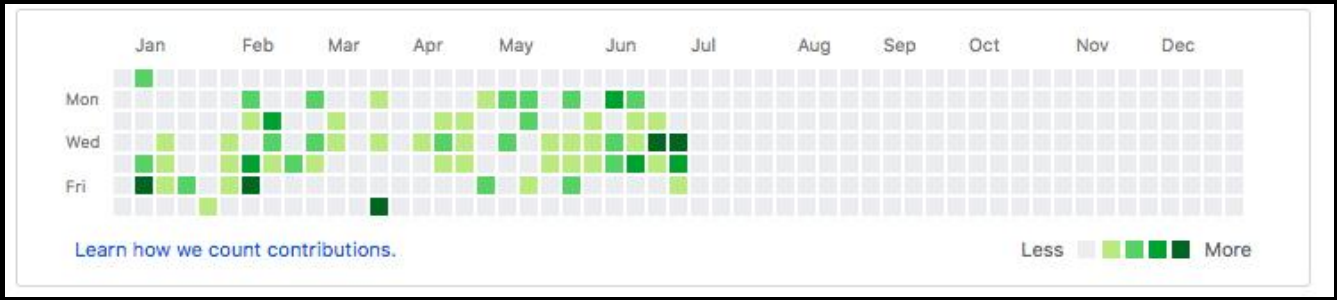
2016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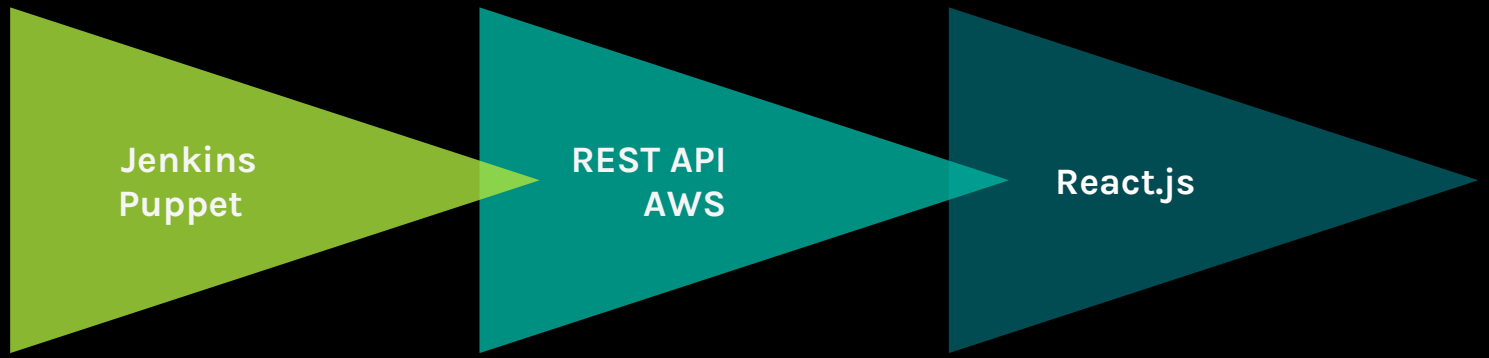
Who cares?

Photo by Štefan Štefančík on Unsplash

The benefit of having a highly competent boss is easily the largest positive influence on a typical worker's level of job satisfaction.

-- study by Benjamin Artz, Amanda Goodall, and Andrew J. Oswald

Fundamental shifts



Why it's hard for managers

Problems with hands-on

- Lack of maker time
- Risk blocking team
- Credibility
- Loss of team autonomy

Leadership priorities

- Lack of prior knowledge
- Strategic focus
- Soft skills development

Changes in tech trends

- Industry moves fast
- Too many options
- Want guaranteed ROI
- Competing priorities

Choose growth

Avoid becoming irrelevant

11:21

Good morning, Kathleen.

"No one saves us but ourselves. No one can and no one may. We ourselves must walk the path."

12 to do

- [ ] GraphQL
- [ ] React.js
- [ ] Machine Learning (take Udacity ML nanodegree course)
- [ ] Presto queries in Hadoop
- [ ] Cryptocurrency
- [ ] Blockchain
- [ ] GCP/AWS/Azure tradeoffs
- [ ] Serverless APIs, lambda functions
- [ ] IoT, wearables, Alexa skills
- [ ] Bots
- [ ] Kubernetes, ELK stack
- [ ] Docker, containers

New Todo

Todo

GMT-07	Mon 21	Tue 22	Wed 23	Thu 24	Fri 25
8am					
9am	busy 8:30 – 9:30am	busy 8:30 – 9:30am	busy 8:30 – 9:30am; busy, 9am	busy 8:30am – 6:05pm	busy 8:30 – 9:30am
10am	busy, 9:30am; busy, 10:15am	busy, 9:30am; busy, 10am; busy 10:30 – 11:30am; busy, 10:30a	busy, 9:30am; busy, 10am		busy, 9:30am; busy, 10am
11am	busy 11am – 12pm	busy, 11:30am	busy, 11am; busy, 11:30am		busy, 11am; busy 11:30am – 12:30pm
12pm	busy, 12pm; busy, 12:30pm	busy 12 – 1pm; busy 12:05 – 1pm	busy, 12pm		busy, 12:30pm; busy, 12:30p
1pm	busy 1 – 2pm	busy, 1pm	busy 1 – 4:50pm	busy 1 – 2pm; busy, 1pm	busy, 1pm; busy 1:30 – 3pm
2pm	busy, 2pm	busy 1:35 – 2:30pm			
3pm	busy, 2:30pm; busy 3 – 3:55pm	busy, 2:30pm			busy, 3pm
4pm	busy, 4:05pm; busy, 4:30pm	busy, 3:30pm; busy 4 – 6:30p; busy, 4:05pm		busy, 4pm	busy, 3:30pm; busy 4 – 5pm; busy, 4pm
5pm	busy 5 – 6pm	busy 5 – 6pm; busy, 5:05pi	busy 5 – 6pm	busy 5:30 – 7pm	busy 5 – 6pm
6pm					

Get creative with time

- Book daily/weekly work calendar slots
- Book daily/weekly personal calendar slots
- Schedule a class and invite others
- Commit to giving a talk (brown bag, conference)
- Prioritize workshops over presentations
- Capitalize on sporadic nights and/or weekends
- Meetups
- Company hackathons

Idea Blitzkrieg

1. Understand the systems and people you manage

- Read all design docs
- Code review (non blocking)
- Set up the dev environment, build, deploy
- Pair program, fix bugs
- Build prototypes on local
- Encourage team brown bags for new learnings
- Encourage code walkthroughs
- Remove/delete dead code

2. Automate management tasks

- Set up system health dashboards
- Set up queries for success metrics
- Write scripts (Python, Google App Scripts)
- Build chrome extensions (ex: recruiting)
- Bots (Slack, Alexa skills, IFTTT)
- Build interview questions, solutions, rubrics
- Third-party software integrations (Jira/Tableau)

3. Work on side projects

- Give a conference talk or brown bag about a side project
- Participate in hackathons (company or outside)
- Contribute to open source
- Build a new interview code challenge: grade it, solve it
- Volunteer at code camps and meetups
- Tutor your kids, niece, friends' kids

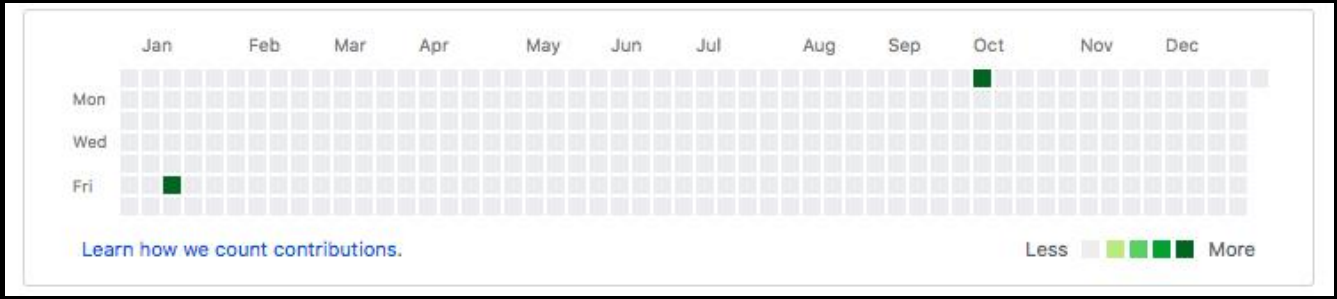
4. Keep up with trends

- Attend conferences ✓
- Attend tutorials/workshops ✓
- Take a class (set a goal, tell someone)
- Read a new technology book
- Tech blogs, podcasts
- Tool demos from third party providers
- Slack channels (Rands #architecture, #tech-chat)

5. Customize your career path

- Move from specialist to generalist
- Take on a project in unfamiliar territory
- Manage a team in a new technical domain
- Consider the IC/manager pendulum
- Take a learning sabbatical
- Alternate between startups and large companies
- Try reciprocal mentoring relationships

2017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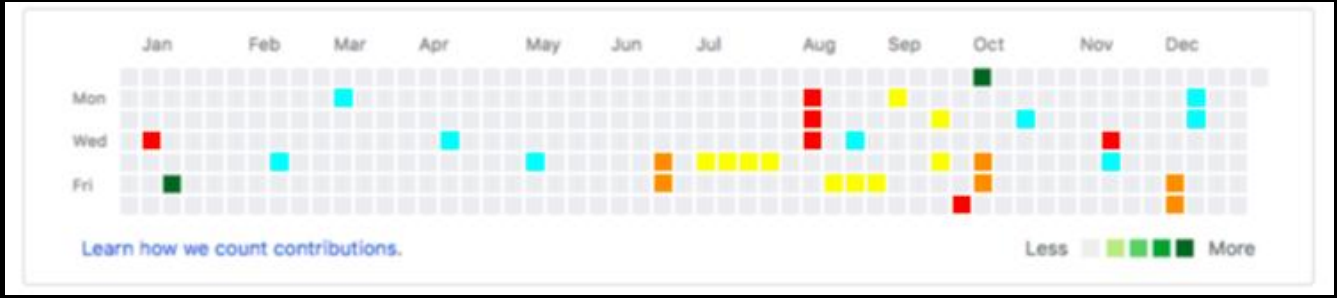
2017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Taking care of your future

Overcome current or future bias

Photo by Federica Galli on Unsplash

Invest in career growth

*However, the **engineering director** is responsible for their organization's overall **technical competence**, guiding and growing that competence in the whole team as necessary via training and hiring. They should have a **strong technical background** and spend some of their time researching new technologies and staying abreast of trends in the tech industry. They will be expected to help debug and triage critical systems, and should understand the systems they oversee well enough to perform code reviews and help research problems as needed. They should **contribute to the architecture and design efforts** primarily by serving as the technically-savvy voice that asks business and product questions of the engineers on their teams, ensuring that the code we are writing matches the product and business needs and **can scale appropriately** as those needs grow.*

-- *Rent the Runway engineering ladder*

Qualify for career opportunities

Preferred qualifications: *Master's degree in Computer Science or a relevant field; Experience developing high-growth, consumer / user-centric technology platforms; Strong engineering leadership and ability to attract top talent, motivate people, instill accountability and get best out of the team; Ability to* ***contribute to architecture/design discussions and make sound technical decisions****; Ability to set and drive the "big picture" strategy while also having the capability to* ***provide detailed technical guidance to the team****, enabling them to execute more effectively and deliver products on time and within budget.*

-- *Google Job Description, Director, Engineering, Chrome Web Platform*

Maintain interview skills

Design a distributed key/value store

What's the search complexity of...

Data structures

Implement an algorithm using MapReduce

UNIX internals

When's the last time you pushed to github?

-- Google engineering manager questions as posted on Glassdoor.com

Stay relevant

Photo by Alexandru Acea on Unsplash

What will you learn next?

#managerswhotech

Credits

Special thanks to all the people who made and released these **awesome resources** for free:

- Presentation template by SlidesCarnival
- Photographs by Unsplash

Thanks!

@kathleencodes

#managerswhotech

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Slides:

Github: https://github.com/kvignos/managerswhotech