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They Don’t Make ‘em Like They Used To

Integrating Junior Developers into Your Team

April 26, 2019

We don’t want Redshirts

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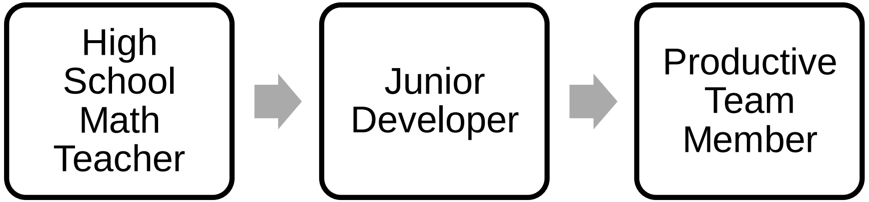
JAMES R KIRK

Who Am I?

- Robin Clower
- Career Path



High School Math Teacher

Junior Developer

Productive Team Member

- Workstate Consulting
  - Drupal, Liferay, DevOps

Outline

- *All Aboard the USS Enterprise* – Onboarding Best Practices
- *Set Phasers to Stun* – Replicable Technology Set-Up
- *I’m a Doctor, not a Teacher!* – Effective Technical Teaching Methods
- *Live Long and Prosper* – Integration and Development Opportunities

All Aboard the USS Enterprise

Onboarding Best Practices

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Make Day 1 Count

- Have a computer available
    - Allows time to customize computer preferences and learn company-specific tools
- Plan a Team Meeting / Lunch
    - Ask remote members to come in when possible
- Assign a buddy team member
    - Ideally with a similar experience level and skillset – for the little questions
- Keep it low stakes

Weeks 1 - X

Your Responsibility

- Maintain documentation on tools and installation
- Develop confidence-building mini-deliverables
- Check in on the buddy system
- Provide contacts – they're just as important as answers
- Communicate a flexible (but defined) timeline

Junior Developer Responsibility

- Technology set-up
- Document pitfalls for future onboarding
- Prepare Mini Projects / Presentations
- Rely on the buddy when embarrassing issues come up
- Reach out to a variety of sources on the team for help when questions come up
- Meet deadlines or communicate in advance if a delay comes up

Structure is key

- Maintain a technical onboarding document
  - Help your junior developer help themselves
- Communicate expectations clearly
- Set goals - short and long

Self Reflection

ACTIVITY (get out some paper or a phone):

- 4 minutes
- One positive, one negative onboarding experience you’ve had
- One positive, one negative about your team’s most recent onboarding
- Talk to the person next to you

Set Phasers to Stun

Replicable Technology Set-Up

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What tech does your Junior Dev need?

ACTIVITY:

- 2 minutes
- Write all tech (hardware, software, languages) you use
- Think through entire day
- Include version number if important

Me:

- Linux (Ubuntu)
- Bash
- Vi/Vim/Nano
- Yarn
- Gulp
- Composer
- Drush
- Slack
- PHP 7.0
- PHPStorm
- Xdebug
- Codesniffer
- Apache2
- MySQL
- MySQL Workbench
- Synaptic Package Manager
- Chrome
- Page Ruler
- OpenVPN
- AMP Validator
- Siteimprove
- Drupal 8
- SCSS
- Javascript
- Jquery
- Zoom
- HTML
- Twig

Assess what technology you use

- Categorize your list
  - **NI** - Not Important
  - **I** - Installed / Intuitive
    - Shouldn’t need to teach
    - Examples: Slack / Atom / Chrome
  - **U** - Understand
    - Will need to teach
    - Examples: Bash / npm / Node.js

Me:

- Codesniffer - **NI**
- Page Ruler - **NI**
- Synaptic Package Manager - **NI**
- AMP Validator - **NI**
- Siteimprove - **NI**
- Xdebug - **NI**
- Apache2 - **I**
- MySQL - **I**
- MySQL Workbench - **I**
- PHPStorm - **I**
- PHP 7.0 - **I**
- Linux (Ubuntu) - **I**
- Slack - **I**
- Chrome - **I**
- Zoom - **I**
- Composer - **U**
- Vi/Vim/Nano - **U**
- Drush - **U**
- Bash - **U**
- OpenVPN - **U**
- Yarn - **U**
- Twig - **U**
- SCSS - **U**
- Javascript - **U**
- Jquery - **U**
- HTML - **U**
- Drupal 8 - **U**
- Gulp - **U**

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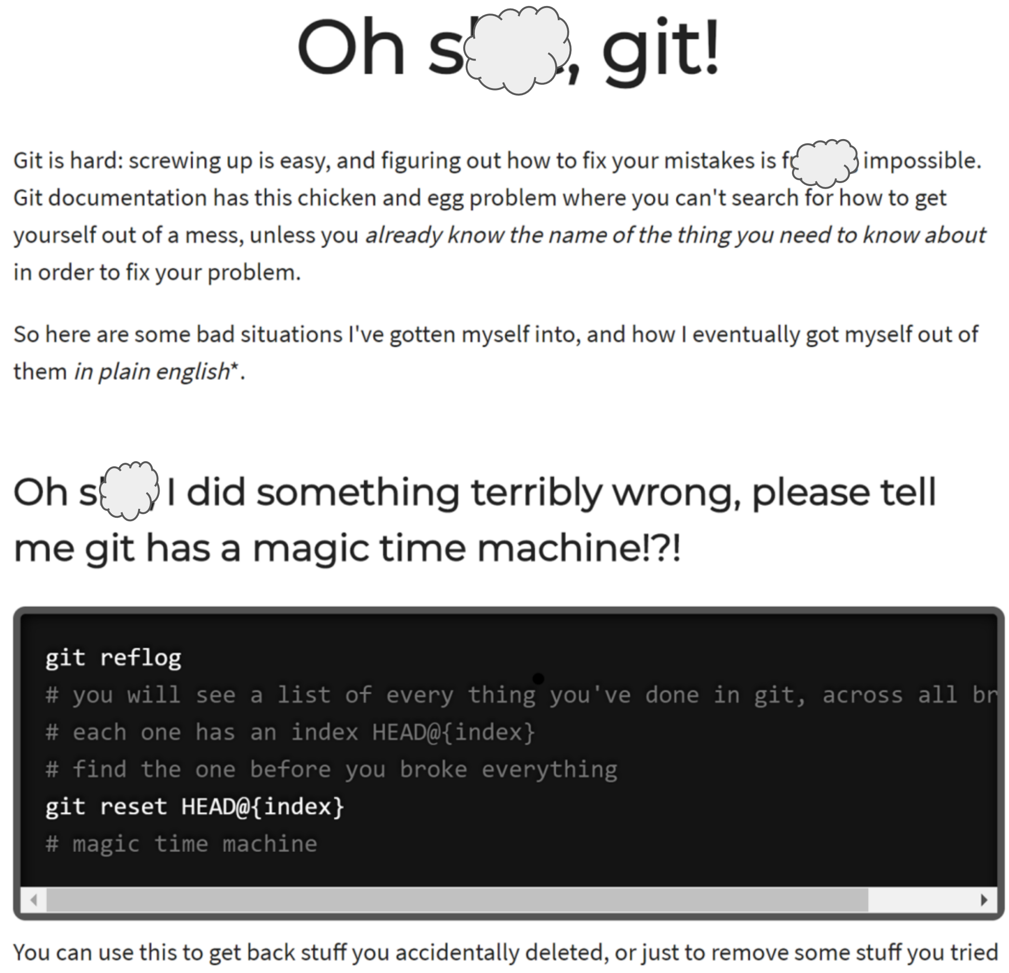
Homework

- Make your list a living document
- Share with team members (team drive) and ask for their additions
- Organize based on logical steps / importance
- Add time estimates
- Find resources
- List pitfalls
- Share with your new Junior Developers!



Oh s[redacted], git!

Git is hard: screwing up is easy, and figuring out how to fix your mistakes is f[redacted] impossible. Git documentation has this chicken and egg problem where you can't search for how to get yourself out of a mess, unless you *already know the name of the thing you need to know about* in order to fix your problem.

So here are some bad situations I've gotten myself into, and how I eventually got myself out of them *in plain english**.

Oh s[redacted] I did something terribly wrong, please tell me git has a magic time machine!?!

```
git reflog
# you will see a list of every thing you've done in git, across all br
# each one has an index HEAD@{index}
# find the one before you broke everything
git reset HEAD@{index}
# magic time machine
```

You can use this to get back stuff you accidentally deleted, or just to remove some stuff you tried

Source: ohsh*tgit.com

Homework

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I’m a Doctor, not a Teacher!

Effective Technical Teaching Methods

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Effective Teaching Methods

- Backwards design in the forefront
- Differentiation for each developer
- Scaffolding to help build developers’ confidence
- Keep Gardner’s Theory of Multiple Intelligences in mind

Just Kidding

- Especially in coding, vocab & jargon matter
- Coding is like a foreign language
- Meet your Junior Developer where they are

The Tree Model of Learning

- Roots - things junior dev should know
  - How to read, etc.
- Trunk - solid base of knowledge
  - HTML, CSS, PHP
- Branches - more specific knowledge
  - SCSS, Drupal
- Twigs - real nitty gritty
  - Syntax, jargon
- Leaves - visual demonstration of skill
  - Useable end product
- **Can’t have leaves without a solid trunk**

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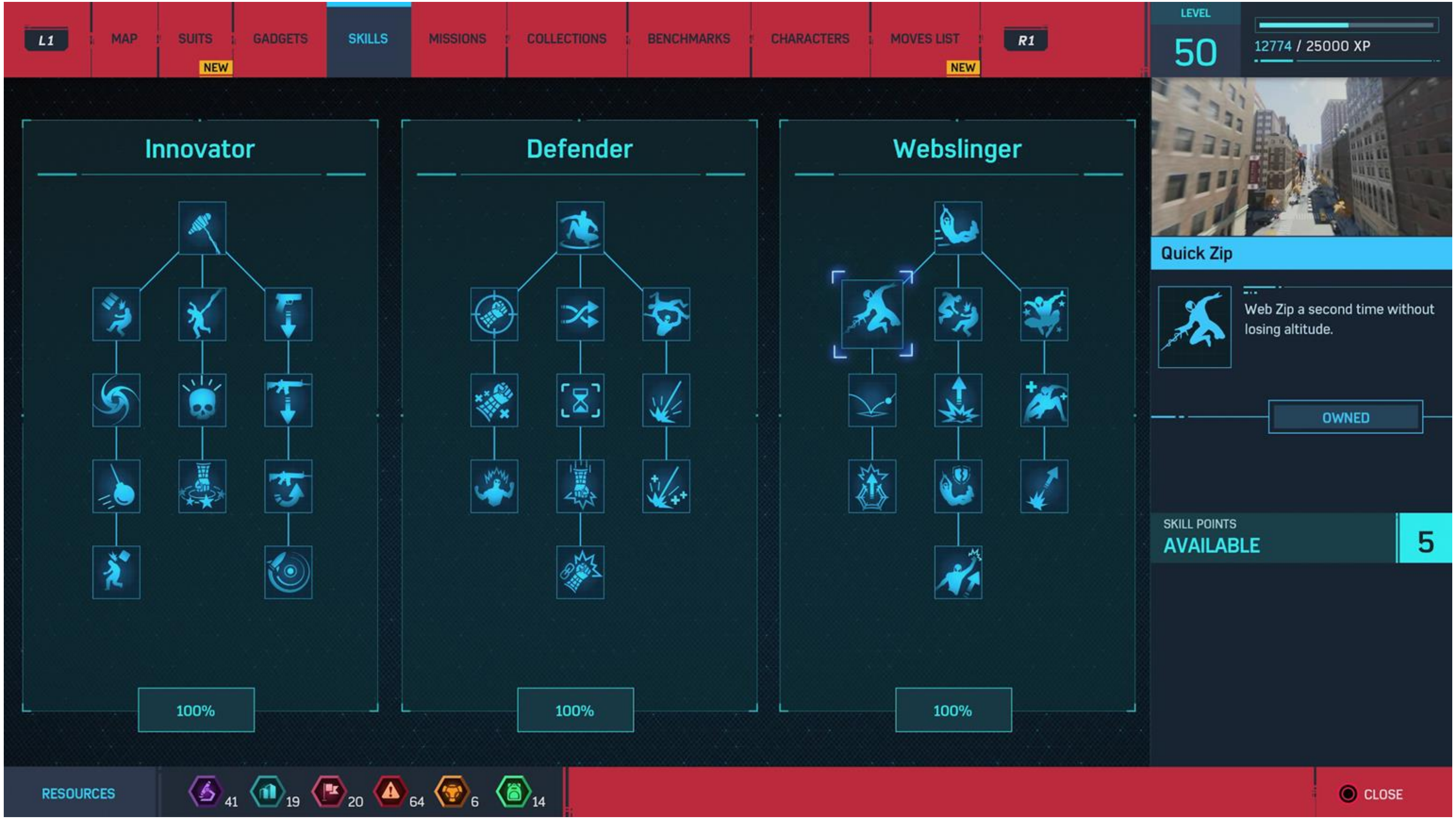


LEVEL 50

12774 / 25000 XP

Quick Zip

Web Zip a second time without losing altitude.

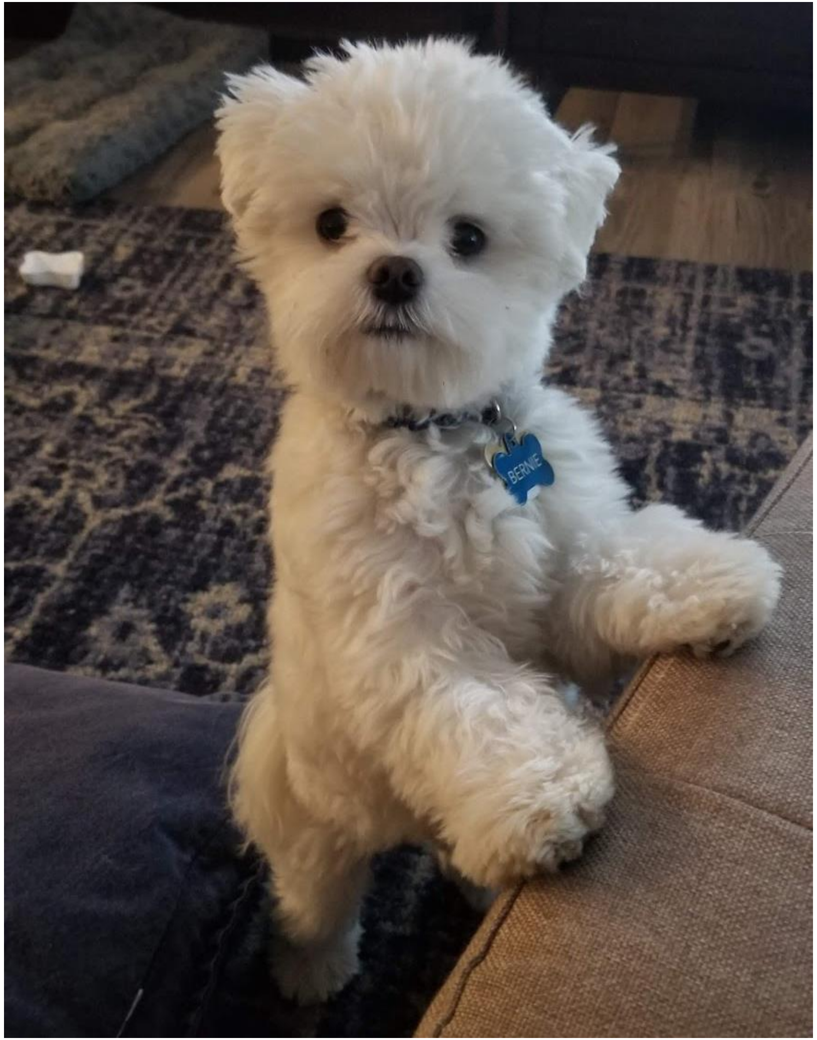
SKILL POINTS AVAILABLE 5

Assessing your Junior Developer’s Baseline

- 90% of teaching is asking questions
- Broad > Narrow questions
- Open ended but leading questions

Answering Junior Developer Questions

- Prepare for common questions
- Avoid tangents
- Don’t talk down
- Ask questions back
- Check in often
- **No stupid questions**



BERNIE

Live Long and Prosper

Integration and Development Opportunities

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Becoming a better team member

- Lose the ‘Two Miles to School Uphill Both Ways’ Mentality
- Help prepare resources
- Find *somewhere* online that explains git well
- Be patient
- Stand up for your people

Help Avoid Junior Developer Pitfalls

- Ask about real weaknesses
  - Procrastination
  - Discomfort asking questions
  - Can’t handle pressure
- Overcome overreliance on internet (stack overflow, copy/paste)
- Provide specific expectations/assignments

Code Review: the most effective teacher

- Goal isn’t to merge code, it’s merge *good* code
- Overall review should follow the tree model
    - Start with big picture code problems
    - After those are fixed, smaller improvements
    - Lastly, refactoring, syntax, spacing
- Avoid personal attacks
- Comments should be constructive, ask open ended questions
- Be empathetic

Summary

- Prepare in advance
  - Hardware
  - Onboarding Materials
  - Assignments
- Think of a skill tree
- Ask questions
- Be patient

Questions?

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