

## 1) Intro

- a) Welcome!
- b) Animations are here for fun, but also to illustrate that one of the things we do as developers is think about time. And what happens at various points in time.
  - i) Graphic artists concern themselves with this less

## 2) Psychology of the industry

- a) Enjoy the ride
  - i) This industry is, to paraphrase Shakespeare, a never fixed mark.  
My advice is to enjoy the roller coaster - don't think of yourself as perfecting "a" language but perfecting your ability to perfect a language.
- b) Parallel techs - the "new new" is not all there is.
  - i) For example, when node first started reddit announced PHP's death - this never happened -- (Mark Twain quote "the reports of my death are greatly exaggerated.")  
A lot of techs are running parallel to one another - the "new new" just becomes a new thread in the tapestry.  
Be wary of internet opinions. They are worth what you paid for them.
  - ii) Yes, React is huge, but Ruby on Rails, Vue, and Angular are still very viable.
  - iii) Exact same thing happened when Mongo started.
- c) CareerFoundry is teaching you both substantive and procedural knowledge:
  - i) Substantive:  
React, React Native, Node are all huge employment opportunities.
  - ii) Procedural  
Learning how to learn languages is essential,
    - (a) As discussed above, your future work may be in a tech that you haven't heard of yet.
    - (b) Once again, enjoy the ride
  - iii) Pretend your mentors are your supervisors
- d) Opinion: aim for Hospitality industry level customer service
  - i) Cleaning up other people's messes is a huge \$\$ maker
  - ii) Clients are infinitely grateful for this

## 3) Importance of coding challenges

- a) Your resume, portfolio, and cover letter will only get you through the door, the live-coding challenges get you the job
- b) During the challenge:
  - i) Anxiety can cause your IQ to plummet
  - ii) Food, coffee, hour of the day -- huge factors in your ability to think clearly.
  - iii) Always map out your logic and verbally describe your process
- c) Start by doing one a day. Don't panic. Each one you do will help you with the next. There are patterns.
- d) Continuing to do this throughout your career is, imo, a really good thing

- i) No matter what language you code them in, it will help
- ii) In your team, it is a really good feeling to be the one that has seen so many repeated patterns that you have valuable insight to give=
- e) Average job length in this industry isn't long
  - i) <https://hackerlife.co/blog/san-francisco-large-corporation-employee-tenure>
  - ii) Be prepared to interview again

#### 4) Continuing education

- a) An ugly truth is that your employer may not be looking out for your long term employability -- you have to be your own champion.
- b) Look at job boards for languages that are currently being used.
  - i) If the job looks like one you'd like to eventually have, learn it.
- c) Mozilla css videos -- highly recommend
- d) Always be aware of new versions of languages coming out -- THESE ARE PLAYING FIELD EQUALIZERS!
  - i) AS3

#### 5) Ugly but true: Scam Employers

- a) Be skeptical. There are clients out there that won't pay and there are companies out there engaged in fraud.
- b) From my experience, these manifest themselves in three ways:
  - i) They're doing something illegal and have the money to pay you but you could be liable.
    - Pyramid company
  - ii) They're scamming clients by promising future work to be done by you
    - Heritage
    - Ashland Coding Company
  - iii) They are hustlers trying to make it. I think this category can kind of go either way but it is a gamble
    - San francisco company who "ran out of checks"
- c) Lastly: Please please please: always get paid for your work.

#### 6) Finally practices that took me too long to incorporate:

- a) Never show clients unfinished work
- b) Tack % onto estimates
- c) Consider doing css first
  - i) All endpoint clients care about is what it looks like
- d) Beware underbilling to impress clients
  - i) Will set up false expectations
  - ii) Undermine long term relationship
- e) Always always always always include steps for replication when asking for help.
- f) If you have a huge application and a piece of it doesn't work--
  - i) pull it out -- solve it in isolation and then integrate it
- g) Reverse engineering
  - i) JQuery
  - ii) Bootstrap
- h) When an artist gives you a wireframe --- it isn't a suggestion, it is law

- i) COUNT PIXELS
- i) If you are completely stuck:
  - i) bring it back to a moment where it worked and build it back piece by piece.
  - ii) If need be, start from scratch in one window with the broken code in another window and move everything over piece by piece.
- j) Github --
  - i) If you have to do something complicated with github (reversions for example) and you are not comfortable with this:
    - Make a dummy repo that mirrors the structure of your project
    - Test, test, test on the dummy repo
- k) Avoid solution spewing -- never underestimate a calm mental state
  - i) "Maybe I'll try this, maybe I'll try this, maybe I'll try this"
    - (a) Very common with css
    - (b) This almost never works out to be an efficient use of time
    - (c) Even if this works, you may not understand why it works
- l) Do not be intimidated by error messaging or server logs
  - i) Error messaging will often reflect the stacks of the origin of the issue and many of the lines will be code from the node\_modules directory, keep reading them until you get to the actual issue
  - ii) Server logs are your friends
- m) If you don't know something
  - i) Please say "I don't know"
  - ii) Identify guesses as guesses
- n)
- o) Ghosts in the machine
  - i) 99% of the time there is a logical code-based reason why something is going wrong BUT corrupted files do exist.
  - ii) So never start with the assumption that there is a ghost in the machine. But always remember that it is a possibility.
- p) Extra:
  - i) Don't forget OG images
  - ii) Common coding errors:
    - (1) Always be thinking mutation
      - (a) Arrays
    - (2) Be careful with "this"
  - iii) Unexpected behavior:
    - (1) isNaN
    - (2) Be careful with shortcuts (++)
- 7) Bonus:
  - a) Toughest interview questions;
    - i) Write a recursive fibonacci sequence
    - ii) Define restful architecture

- iii) What are the four principals of OOP
  - iv) Discuss your thought process on whether to put code client side or server side
    - (1) This one not so much hard but interesting
- b) Shallower
  - i) CMSs
- c) Deeper
  - i) Object pooling
  - ii) Recursive functions
  - iii) Permutation
  - iv) Maze Handling
  - v) Big "O" notation
  - vi) Sorting Algorithms
  - vii) Searching Algorithms
  - viii) Stacks, queues
  - ix) Hash maps
  - x) (super fun) code your own tweeting engine
- d) Final note:
  - i) Remember all you have to be is smart enough in the moment
    - (1) Geodesic dome emulator
  - ii) Self-presentation
    - (1) A lot of this is rooted in bigotry, so let me just say

#### Exhibits:

- 1) Codepen with ++ examples
- 2) Mdn array methods
- 3) Button example with the keyword "this"
- 4) OG images link
- 5) OG images summary