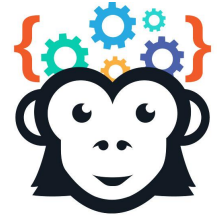


COMPANIES, HIRING, TECHNICAL SELECTION (& WHAT TO DO ONCE YOU'RE IN THERE...)



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Mike Ritchie | @13coders | mike@13coders.com

ME : THE OBLIGATORY MINI-BIO

30 YEARS  WORKING IN SOFTWARE DEVELOPMENT

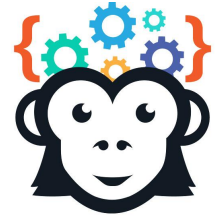
MANY SECTORS, DOMAINS, DIFFERENT PROBLEMS

I'VE DONE SOME NON-DEV / MANAGER-ISH THINGS

I DO A MIX OF DEV, CONSULTANCY & COACHING NOW



MODERN SOFTWARE DEVELOPMENT : HOW WE ROLL, AND WHAT IT TAKES



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POP QUIZ : WHAT ARE THE CHARACTERISTICS OF A TECHIE ?

JUST SHOUT OUT THE THINGS THAT COME INTO YOUR HEAD
WHEN YOU THINK OF “A DEVELOPER/PROGRAMMER”

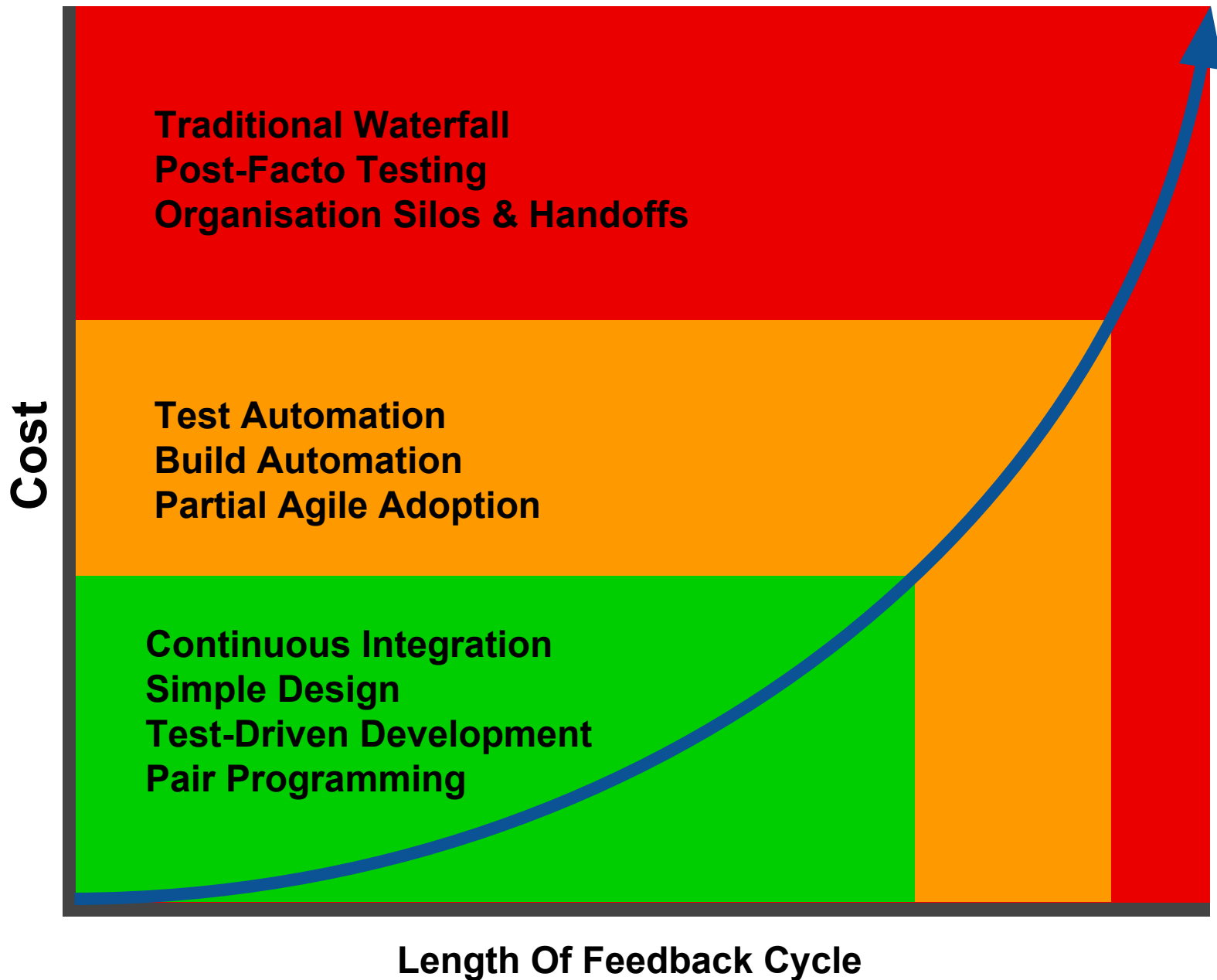
(CLICHÉS, STEREOTYPES AND MILD INSULTS ARE FINE)



WARNING:

MAY CONTAIN STRONG
OPINIONS

**VIEWER
DISCRETION
ADVISED**



WHAT DOES GOOD DEVELOPMENT LOOK LIKE

CODE CRAFT: CLEAN, TEST-DRIVEN, SIMPLE DESIGN

HIGHLY COLLABORATIVE, PAIRED DEVELOPMENT

EVERYONE LEARNING + SHARING, ALL THE TIME

AUTOMATE ALL THE THINGS



GREEN

RED



Refactor!

DEVELOPER : KEY INGREDIENTS

CREATIVE: ABSTRACT IDEAS + LANGUAGE => SOLUTIONS

CONFIDENT: CAN DELIVER BY WORKING THE RIGHT WAY

HUMBLE: KNOWING YOU DON'T KNOW EVERYTHING

ETHICAL: IMPACT OF ACTIONS ON USERS+COLLEAGUES



THE “ROCKSTAR/NINJA PROGRAMMER” ANTI-PATTERN

“WELL, S/HE IS DIFFICULT...BUT ...

THEY GET STUFF DONE...”



MOST OF THE TIME, THESE PEOPLE ARE TOXIC FOR TEAMS



All too often, programmers are divided into average programmers and rockstar or ninja programmers. Where there's a rockstar, there's a trashed codebase with broken classes and spaced-out control flow. Where there's a ninja, there's mysterious bugs and build problems that occur in the middle of the night.

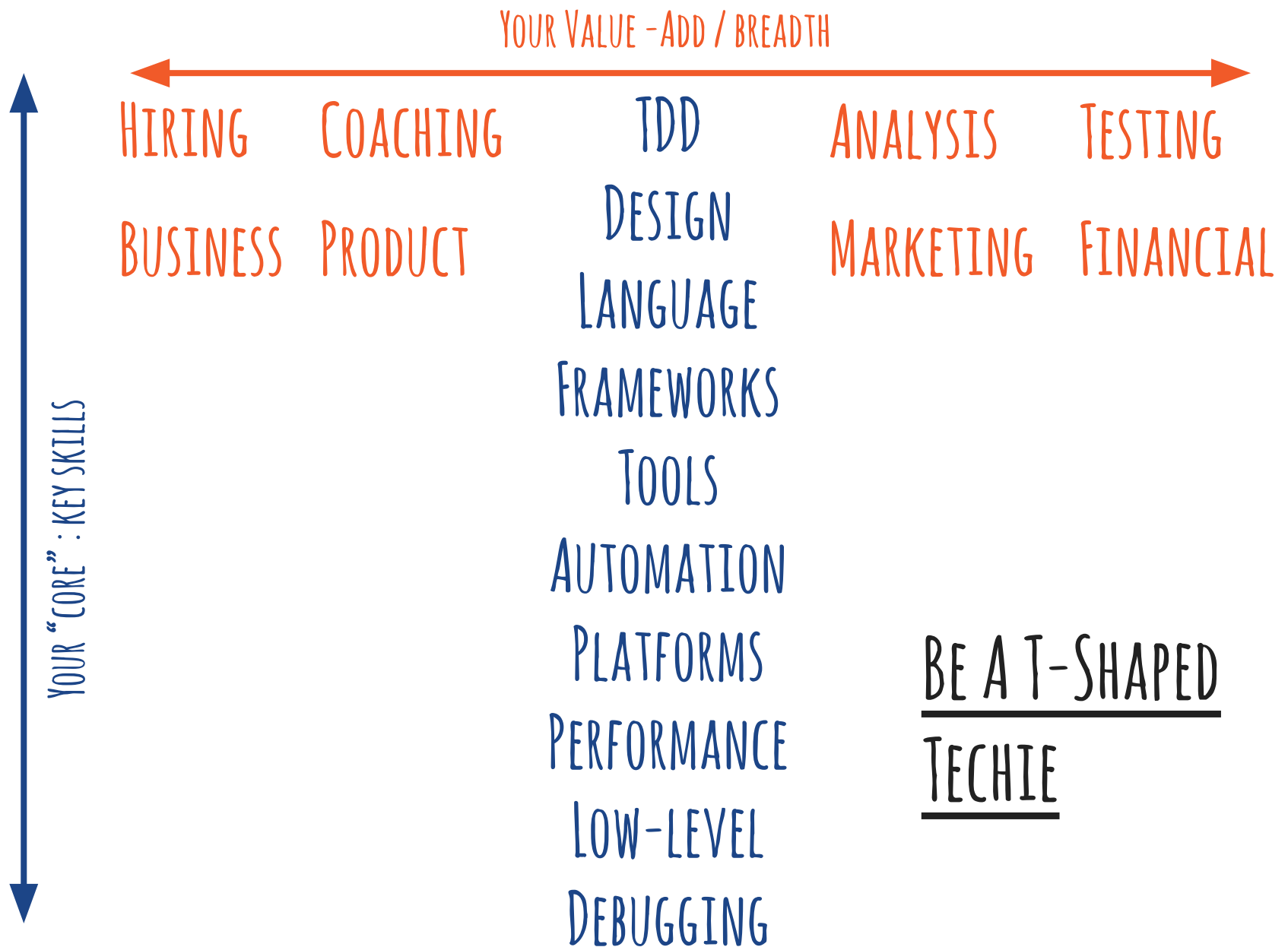
Where there's an average, there's a distribution. In the long term, what matters is less *where on the distribution someone is* than where they are *headed*.

If you want to divide programmers into two groups, there are programmers who get better and programmers who don't.

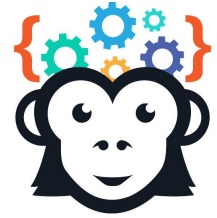
You care about the first group.

-- Kevlin Henney, preface to "Becoming a Better Programmer"





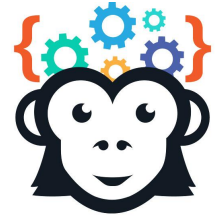
II PAUSE II



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QUESTIONS, COMMENTS, HOWLS OF DERISION ?

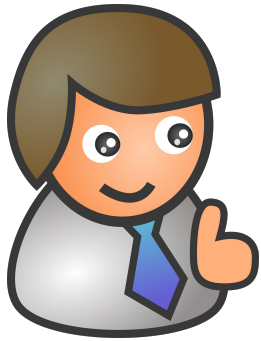
NAVIGATING THE WHOLE HIRING AND TECHNICAL SELECTION PROCESS



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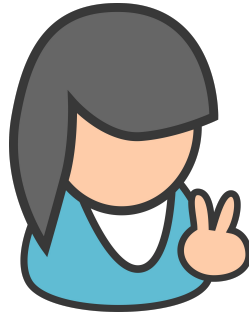
Mike Ritchie | @13coders | mike@13coders.com

HIRING PROCESS : THE CAST OF CHARACTERS



REGINALD THE
RECRUITER

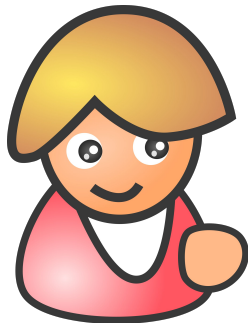
YOU, THE AMAZING
CANDIDATE



THERESA THE
TECH INTERVIEWER

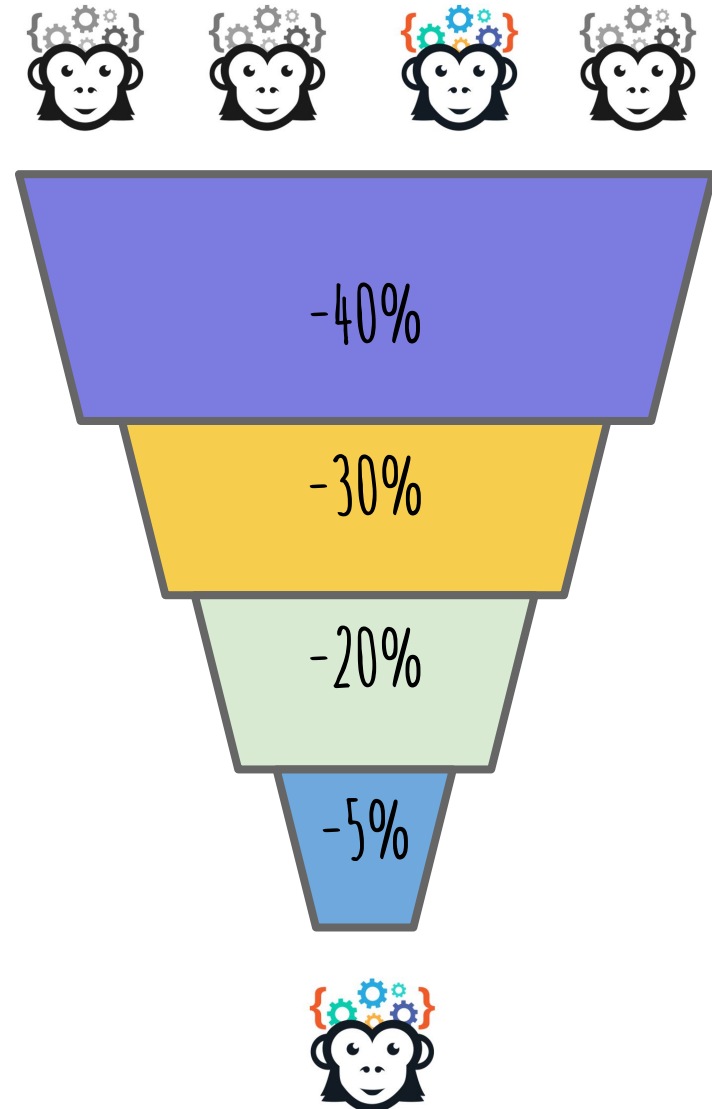


HENRY THE HIRING
MANAGER



HIRING PROCESS : “THE FUNNEL”

CV/APPLICATION SCREEN
PHONE SCREEN OR TECH TEST
FACE TO FACE TECH INTERVIEW
COMPETENCY-BASED INTERVIEW



WHAT MAKES AN INTERVIEWER HAPPY

WORDS AND ACTIONS
MATCH

YOU DO WHAT YOU SAY YOU DO

A NARRATIVE THAT MAKES
SENSE

JOINED UP, WITH PURPOSE AND INTENT

YOU'RE IN CONTROL OF YOUR
OWN DESTINY

YOU'RE DRIVING, AND NOT BEING LED

...AND UNHAPPY...

DISINTEREST, DISENGAGEMENT

KILLS 99.99% OF JOB

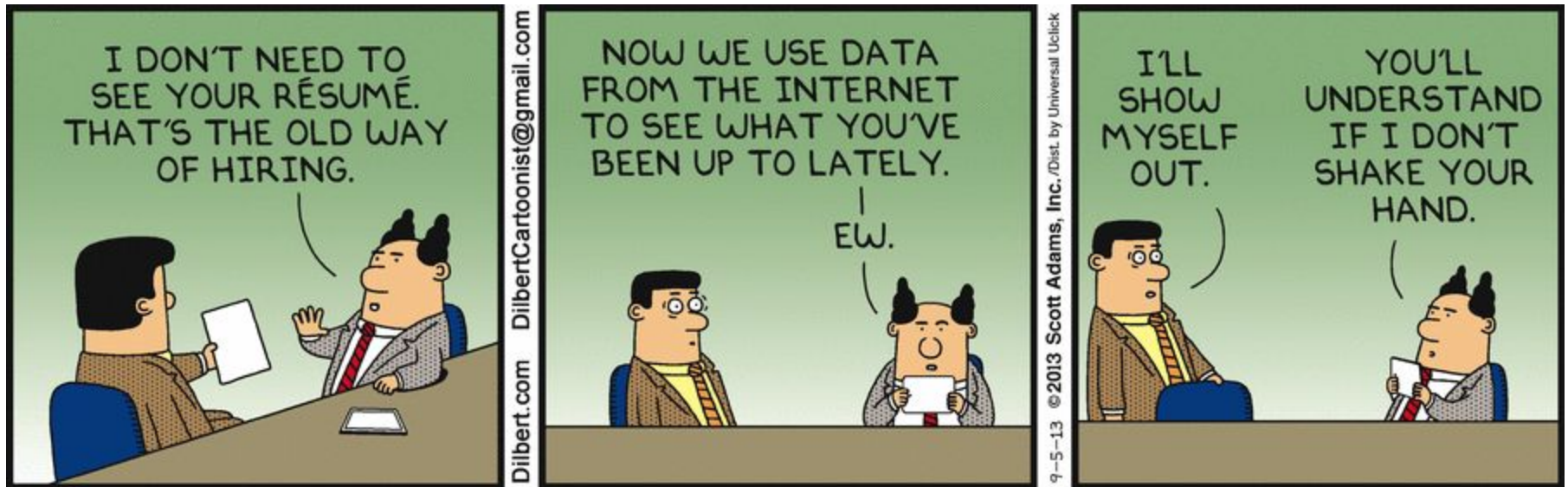
APPLICATIONS.

STONE.

DEAD.



CVs, APPLICATIONS: GETTING OFF TO A GOOD START



GET THE CV BASICS RIGHT

- A COUPLE OF PAGES, JUST THE IMPORTANT STUFF
- AVOID ENDLESS LISTS OF TOOLS & FRAMEWORKS
- SPELLING AND GRAMMAR : AIM FOR ERROR-FREE
- REVERSE CHRONOLOGICAL ORDER, THANKS :)
- NARRATIVE, AGAIN: WHERE ARE YOU HEADING & WHY?
- GET IT REVIEWED



...GET YOUR CONTRIBUTION AND NARRATIVE ACROSS

- WHAT WAS YOUR OWN CONTRIBUTION ?
- WHAT DID IT ACCOMPLISH ?
- WHAT DID YOU GET OUT OF IT ?
- WHAT NEW STUFF DID YOU LEARN ?



TELEPHONE SCREENS : A CONSISTENCY CHECK, AND A FILTER



PHONE SCREENS : THE KNOWLEDGE-BASED STUFF

SHORT, FAIRLY SPECIFIC QUESTIONS:

- LANGUAGE, CORE API
- CS CONCEPTS (ALGOS, DATA STRUCTURES)
- TOOLS AND 3RD PARTY FRAMEWORKS
- VIRTUALLY ANYTHING RELATING TO YOUR SKILLS



PHONE SCREENS : THE EXPERIENCE-BASED STUFF

- “TELL ME WHAT YOU DID ON <PROJECT>?”
- “IT SAYS HERE YOU USED <FRAMEWORK>...
...WHAT PROBLEMS DID YOU FACE?”
- “TELL ME HOW YOU SWITCHED TO <TOOL>”



PHONE SCREENS : HOW TO APPROACH 'EM

- BE FRIENDLY...REMEMBER IT'S A FILTER
- KEEP YOUR ANSWERS CONCISE
- ASK FOR CLARIFICATION IF YOU NEED IT
- SAY WHEN YOU DON'T KNOW
- DON'T DO THIS →

Google

how do I reverse a string in

how do i reverse a string in **java**

how do i reverse a string in **python**

how do i reverse a string in **c++**





Jonathan Eyler-Werve

@EylerWerve



Follow

The psychodynamics of coding interviews in one picture.



RETWEETS

1,366

LIKES

1,225



ONLINE TECHNICAL TESTING AND SCREENING



A VERY COMMON CHOICE

FOR COMPANIES NOW.

TIMED CHALLENGES, SET BY

THE INTERVIEWER.

codility

FREE TO SIGN UP AND TAKE SAMPLE/PRACTICE
CHALLENGES



PRACTICAL/“HOMEWORK” ASSIGNMENT



- PRACTICAL EXERCISE, DONE OFFLINE
- FOR SCREENING OR AS F2F DISCUSSION POINT
- EXAMPLE #1: “CLEAN UP AND FIX THIS CODE”
- EXAMPLE #2: “WRITE AN APP/SITE THAT DOES...”
- EXAMPLE #3: “DO THIS CODE KATA”
- ACTUALLY A PRETTY GOOD, FLEXIBLE APPROACH



TIPS FOR PRACTICAL ASSIGNMENTS



- KEEP A LOG AS YOU WORK THROUGH IT
- SHARE THIS BACK WITH THE COMPANY : README.MD
- FOCUS ON READABILITY, SIMPLICITY AND CLARITY
- DIY, BUT IT'S OK TO GET REVIEW INPUT FROM PEOPLE
- THINK ABOUT DISCUSSION POINTS : YOU DRIVE



F2F INTERVIEWS: VENDING MACHINE, A REAL CODING EXAMPLE

A SIMULATION OF A VENDING MACHINE, DONE IN A TEST-DRIVEN STYLE:

- INSERT MONEY, TRACK TOTAL
- RETURN MONEY ON DEMAND
- VEND ITEMS, TRACK STOCK

<http://bit.ly/vendingkata>



F2F INTERVIEWS: GOOD APPROACHES TO USE

- WRITE A LIST OF TESTS TO KEEP YOU FOCUSED
- SKETCH AN IDEA ON PAPER
- GO THROUGH THE SPEC AND HIGHLIGHT ALL THE NOUNS
- SIMPLIFY, AND FLAG THAT YOU'RE DOING IT
- ENGAGE THE OTHER GEEK IN THE ROOM WHO PROBABLY WANTS TO GET CODING ANYWAY :)



F2F INTERVIEWS: QUESTION AND ANSWERS

EXPECT:

- SPECIFIC QUESTIONS ABOUT LANGUAGE, DESIGN AND TECHNIQUES
- OPEN QUESTIONS THAT YOU NEED TO THINK ABOUT, STRUCTURE, AND MAYBE SKETCH OUT



FIZZBUZZ...DON'T BE THAT PERSON...



CODING HORROR
programming and human factors

26 Feb 2007

Why Can't Programmers.. Program?

I was incredulous when I read [this observation from Reginald Braithwaite](#):

Like me, the author is having trouble with the fact that [199 out of 200](#) applicants for every programming job can't write code at all. I repeat: *they can't write any code whatsoever.*



FIZZBUZZ, AN ALTERNATIVE THEORY



Richard Dalton

@richardadalton

 Follow

FizzBuzz was invented to avoid the awkwardness of realising that nobody in the room can binary search an array.

RETWEETS

10

LIKES

9



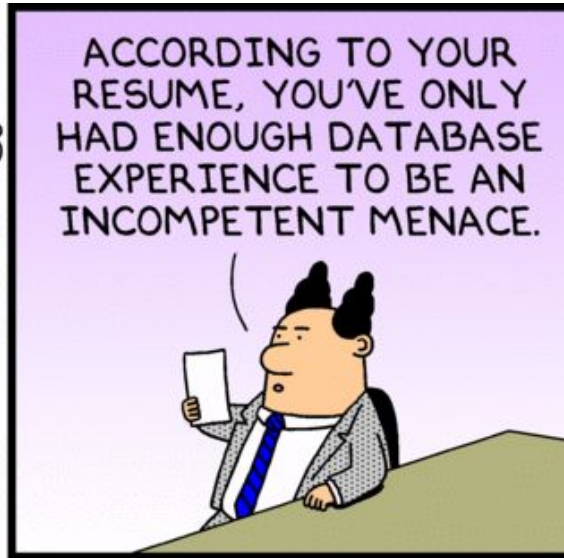
2:29 AM - 24 Apr 2015



COMPETENCY-BASED INTERVIEWS



Dilbert.com DilbertCartoonist@gmail.com



11-3-12 © 2012 Scott Adams, Inc. /Dist. by Universal Uclick



A REAL EXAMPLE :ON “EMPATHY”

- “DESCRIBE A SITUATION WHERE YOU NEEDED TO UNDERSTAND THE NEEDS OR POINT OF VIEW OF OTHERS WHEN MAKING A DECISION.”
 - “WHAT WAS THE SITUATION ?”
 - “WHAT DID YOU DO TO IDENTIFY AND UNDERSTAND THEIR NEEDS ?”
 - “WHAT WAS THE OUTCOME ?”



TIPS: EASY TO REMEMBER, AND MIGHT DIG YOU OUT OF A HOLE

- “STAR” / “SO WHAT?”

- SITUATION - TASK - ACTION - RESULT

- “SO WHAT?” IS EASIER TO REMEMBER

- “MIRROR, SIGNAL, MANOEUVRE”:

- FLAG THAT YOU’RE ABOUT TO TAKE A TURN AND
THEN TAKE IT



INTERVIEWS : THEY'RE NOT ONE-WAY TRAFFIC. HAVE QUESTIONS.



“WILL I BE ABLE TO KEEP LEARNING IN THIS PLACE...?”

“HOW DO YOU SUPPORT LEARNING ON THE JOB? IS THERE DEDICATED LEARNING TIME?”

“WHAT KIND OF MENTORING SETUP DO YOU HAVE?”

“DO YOUR DEVELOPERS ATTEND CONFERENCES TO KEEP UP TO SPEED WITH CHANGES IN TECHNOLOGY?”



“I WONDER WHAT THEIR DEVELOPMENT APPROACH IS...?”

*“DO YOU DO CODE REVIEW ? HOW DOES IT WORK IN
YOUR COMPANY ?”*

*“WHAT KIND OF EQUIPMENT AND TOOLS DO YOUR
DEVELOPERS WORK ON ? IS THERE ANY FLEXIBILITY ON
TOOLS ?*

*“DO YOU PAIR PROGRAM ? WOULD YOU SAY THAT
MOST DEVELOPMENT USES TDD ?*



“I WONDER HOW WELL THE WHOLE ORGANISATION WORKS...?”

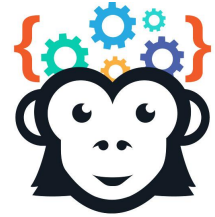
*“DO ENGINEERS / DEVELOPERS HAVE DIRECT CONTACT
WITH PRODUCT MANAGERS? TESTERS? UX PEOPLE?
DOES EVERYONE WORK IN A SINGLE TEAM?”*

*“WOULD YOU SAY THAT YOU “DO AGILE”? WHAT KIND
OF AGILE METHODOLOGY DO YOU FOLLOW?”*

“HOW OFTEN DO YOU SHIP/RELEASE PRODUCTS?”



|| PAUSE ||



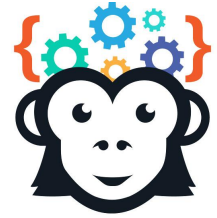
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“JEEZ, HOW MANY SLIDES HAS THIS GUY GOT?”

CONGRATULATIONS !

YOU'RE HIRED !

UMMMM...*NOW* WHAT ?



13coders

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Richard Dalton

@richardadalton

 Follow

Welcome to Mastermind, what is your chosen specialist subject?

"Javascript frameworks,
June 1st 2014 to June 3rd 2014"

RETWEETS

178

LIKES

149



4:44 AM - 5 Sep 2015



THINGS THAT MATTER LONG-TERM

PEOPLE/ORG SKILLS

CODE CRAFT

PROGRAMMING IDIOMS

SOFTWARE DESIGN

LANGUAGES

TOOLS

FRAMEWORKS

THINGS THAT MATTER LONG-TERM VS INITIAL FOCUS

PEOPLE/ORG SKILLS

CODE CRAFT

PROGRAMMING IDIOMS

SOFTWARE DESIGN

LANGUAGES

TOOLS

FRAMEWORKS

FRAMEWORKS

TOOLS

LANGUAGES

SOFTWARE DESIGN

PROGRAMMING IDIOMS

CODE CRAFT

PEOPLE/ORG SKILLS

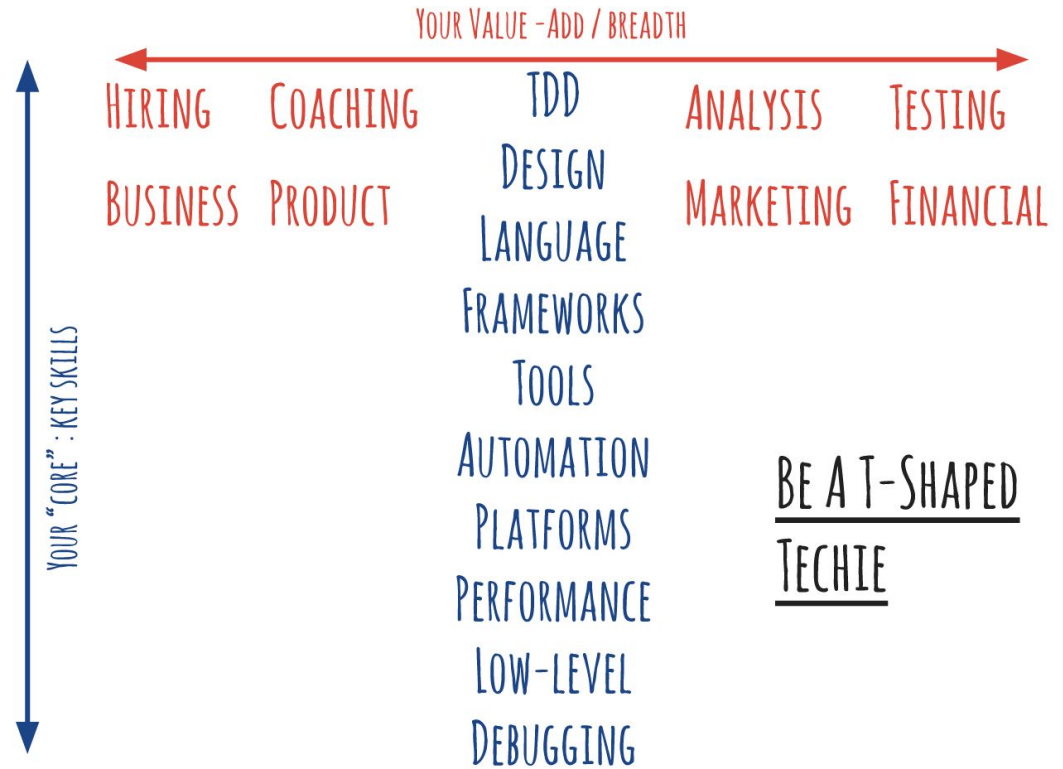
THE FIRST COUPLE OF YEARS

- ORG CULTURE AND TECHNICAL MENTORING MATTER MORE THAN ANY OTHER FACTORS
- PAIR PROGRAM AND HOOVER KNOWLEDGE MERCILESSLY
- EYES ON THE PRIZE - KEEP THE LONG-TERM IMPORTANT STUFF IN MIND
- YOU'RE NOT THERE JUST TO MAKE UP THE NUMBERS



...AND THE NEXT FIFTY...

THIS JUST GETS
BROADER & DEEPER -
YOU DON'T LEAVE
THE "T" CORE
BEHIND...

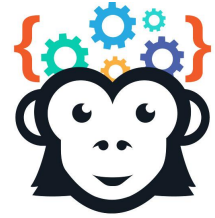


STUFF FOR YOU TO DO : YOUR KANBAN BOARD

- START A PERSONAL PROJECT : GITHUB OR BITBUCKET
- LINKEDIN : SORRY, BUT YEAH, LINKEDIN.
- GO ALONG TO SOME TECH MEETUPS
- START PRACTICING TDD USING CODE KATAS
- SIGN UP FOR HACKERRANK AND CODILITY
- CV AND NARRATIVE



THANKS FOR LISTENING!



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[HTTPS://UK.LINKEDIN.COM/IN/13CODERS](https://uk.linkedin.com/in/13coders)

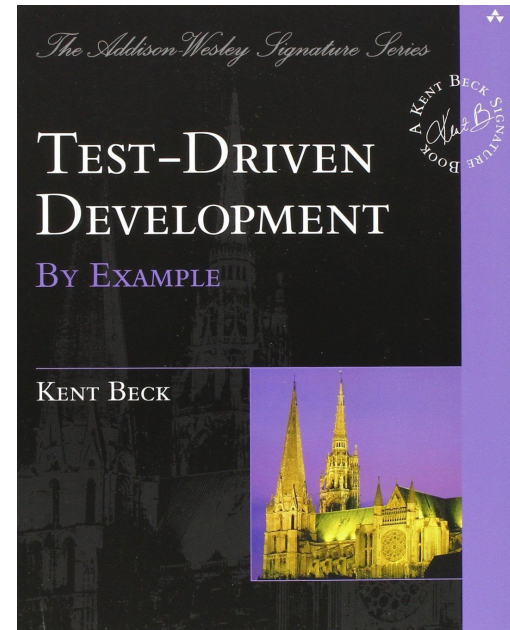
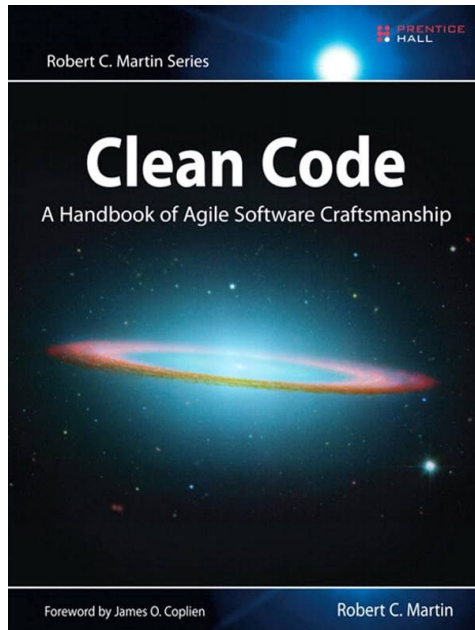
@13CODERS

MIKE@13CODERS.COM

+44 7808 480387

“OH, WHAT, *SERIOUSLY...* THIS GUY IS *STILL TALKING ?*”

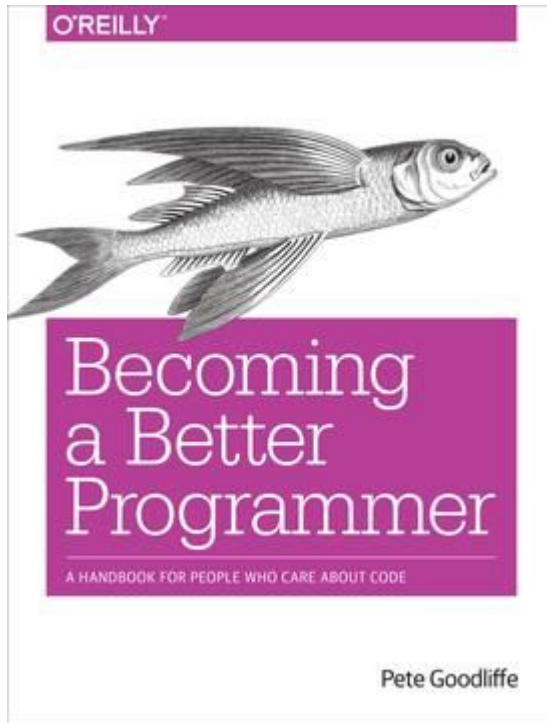
RESOURCES : BOOKS ON CLEAN CODING APPROACHES



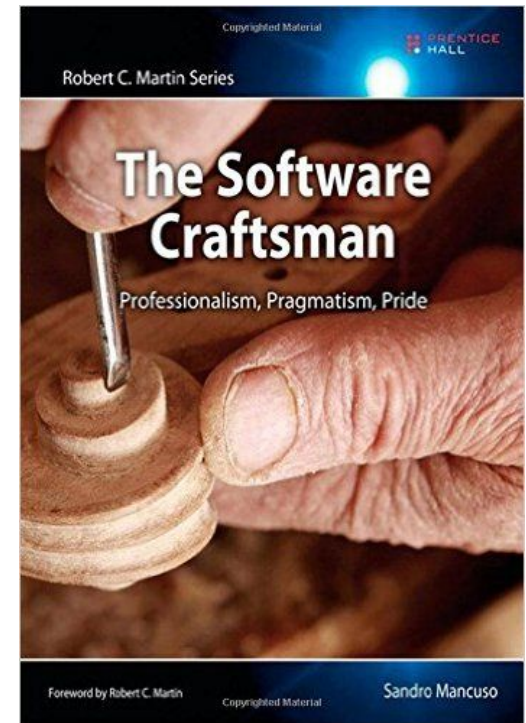
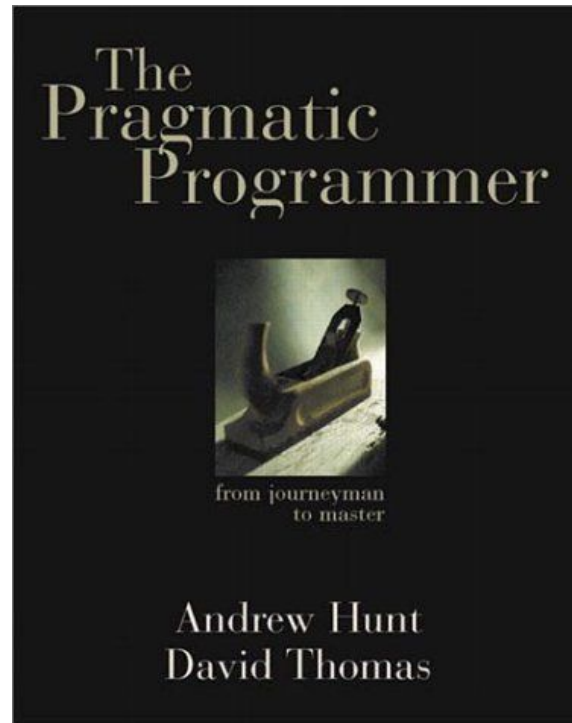
BOTH GOOD, IN DIFFERENT WAYS



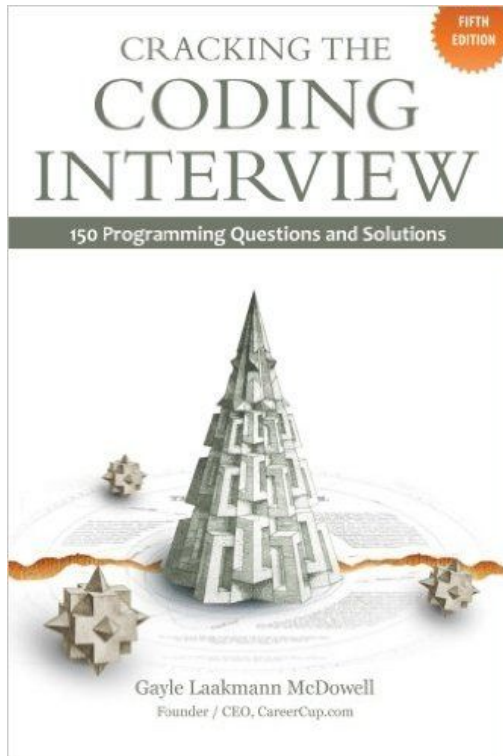
RESOURCES : GETTING BETTER AT GETTING BETTER



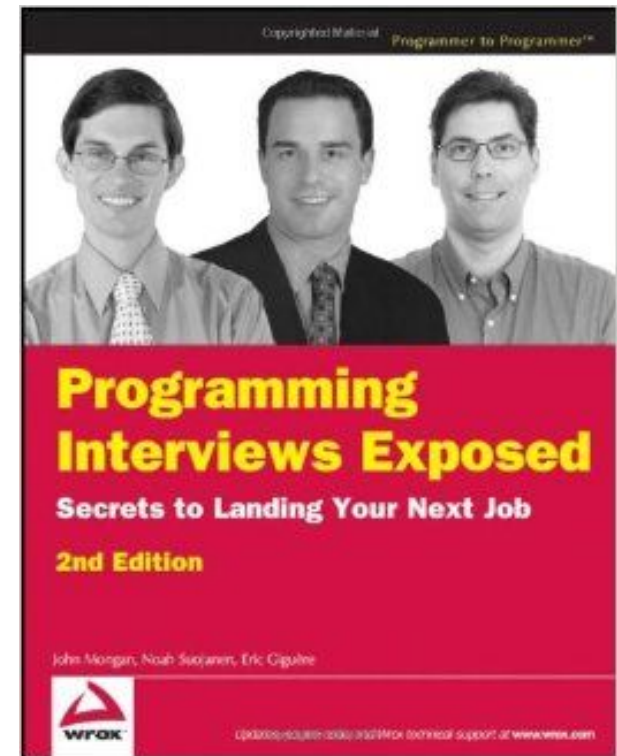
THIS IS VERY, VERY GOOD



BOOKS ABOUT GETTING HIRED



← IF YOU'RE ONLY GETTING ONE, THIS IS PROBABLY IT

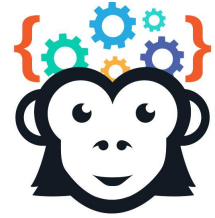


RESOURCES : ONLINE ARTICLES

- STEVE YEGGE ON GETTING HIRED AT GOOGLE
- GREAT LIST OF CODE KATAS TO TRY OUT
- ROBERT C. "UNCLE BOB" MARTIN'S VIDEO INTRO TO CLEAN CODE
- MARTIN FOWLER ON 4 RULES OF SIMPLE DESIGN
- HACKERRANK AND CODILITY
- OPEN TECH CALENDAR
- GUARDIAN CAREERS ADVICE



THANKS FOR LISTENING!



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“OH, WHAT, *SERIOUSLY...* THIS GUY IS *STILL TALKING ?*”