GETTING TECHNICAL

STARTING A CAREER IN TECH

IN THEORY THERE IS NO DIFFERENCE BETWEEN THEORY AND PRACTICE; IN PRACTICE THERE IS.

Unknown

GARY MORRISON

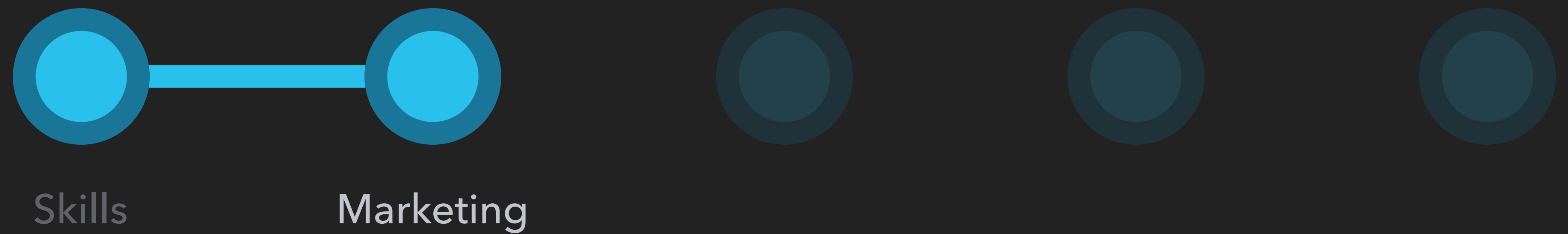▸ Environment Canada (2006)

▸ A Thinking Ape (2010)

▸ HootSuite (2011)

▸ Twitter (2013)

▸ LegalZoom (2015)

THE ROAD FROM DEGREE TO WORK

Skills

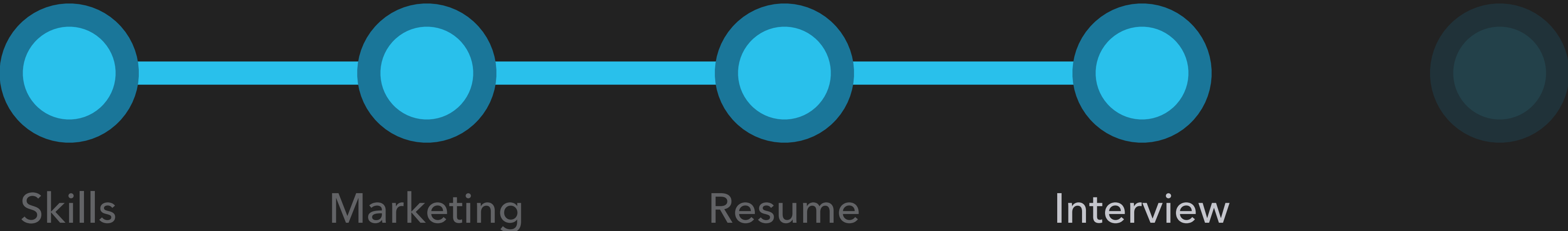# THE ROAD FROM DEGREE TO WORK

Skills   Marketing

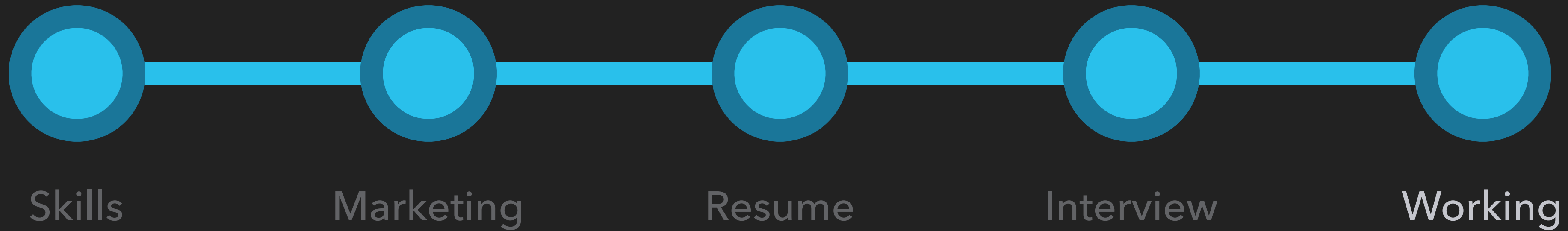# THE ROAD FROM DEGREE TO WORK

Skills   Marketing   Resume

THE ROAD FROM DEGREE TO WORK

Skills   Marketing   Resume   Interview

THE ROAD FROM DEGREE TO WORK

Skills   Marketing   Resume   Interview   Working

QUICK WAYS TO LEVEL UP

▸ Post-Secondary Education (DONE!)

▸ Contribute to an open source project

▸ Attend hack-a-thons

▸ Program that thing you've wished someone else would make

YOU ARE YOUR OWN MARKETING DEPARTMENT

▸ Update your resume (we'll get here shortly)

▸ Create a LinkedIn profile

▸ Create a GitHub account

▸ Lock down ALL social media… Facebook, Twitter, MySpace, Instagram…

WHY AM I EVEN DOING THIS?!

▸ Your resume is NOT an assignment

▸ It is a tool used to market you

▸ Similar to how a business card tells someone how to contact you,
    your resume tells another person what skills you have experience with.

▸ You need to paint a picture about how you will make your employer money!

WHO SEE'S YOUR RESUME?

Recruiters

Automated
Screeners

Engineering Team

WHAT TO INCLUDE… FORMAT

‣ You should have **two different versions** of your resume:

‣ **Text** only for email

‣ **PDF or HTML** for printing

EXAMPLE RESUME

DON'T USE THIS!
WE'LL FIX IT LATER!

Nelson Bighetti
1532 Mission St. San Francisco CA 94103
415-555-8472
tokengiggles@yahoo.com

OBJECTIVE

Looking for a position that allows me to fully utilize my skills and attributes and provides professional advancement opportunities.

EDUCATION

University of Tratador   May 2016 (anticipated)
Bachelors of Applied Science - Computing Science

Related Coarses: Algorithms, Deep Learning, Networking, Linear Algebra, Computer Vision

San Bernando High School   May 2012
Diploma
Related Courses: Math, AP Physics, Home Economics

EXAMPLE RESUME

DON'T USE THIS!
WE'LL FIX IT SOON!

Nelson Bighetti
1532 Mission St. San Francisco CA 94103
415-555-8472
tokengiggles@yahoo.com

WORK EXPERIENCE

Starbucks   June 2014 - Present
Barista
- Handled cash transactions at a high throughput store
- Processed inventory during multiple shipments a day
- Provided exceptional customer service
- Passed FoodSafeBC certification to prepare food
- Attended and completed workplace human resources training

PROJECT EXPERIENCE   September 2015

Ticket Reservation System
CMPT 3201
- Created system to reserve seats in a local theater using agile software development methodologies

GETTING TECHNICAL

EXAMPLE RESUME

DON'T USE THIS!
WE'LL FIX IT NEXT!

Nelson Bighetti
1532 Mission St. San Francisco CA 94103
415-555-8472
tokengiggles@yahoo.com

SKILLS

- Java, Python, C, Objective-C, Haskell, Scala, Ruby, Brainf**k, Scheme, Assembly, BASH, CSH
- Microsoft Word, Microsoft Powerpoint, Microsoft Windows, Mac, Excel, Linux,
- Compassionate Listening and Leadership
- English and Spanish

INTERESTS

- Cards against Humanities or Dungeons and Dragons
- Swimming
- Tractors and farm equipment maintenance

REFERENCES

- Available upon request

EXAMPLE RESUME

⚠️

Looks good?

EXAMPLE RESUME

You're not expecting a letter are you?

Nelson Bighetti

1532 Mission St. San Francisco CA 94103

415-555-8472

This sends the wrong signal → tokengiggles@yahoo.com

Objectives are hard, what are you telling the reader? Avoid if possible.

OBJECTIVE

Looking for a position that allows me to fully utilize my skills and attributes and provides professional advancement opportunities.

EDUCATION

SRSLY?! Spell check!

University of Tratador   May 2016 (anticipated)
Bachelors of Applied Science - Computing Science
Related Coarses: Algorithms, Deep Learning, Networking, Linear Algebra, Computer Vision

San Bernando High School   May 2012
Diploma
Related Courses: Math, AP Physics, Home Economics

It's assumed you went to high school or were smart enough to skip it and go straight to university

EXAMPLE RESUME

Nelson Bighetti
1532 Mission St. San Francisco CA 94103
415-555-8472
tokengiggles@yahoo.com

WORK EXPERIENCE

Starbucks
Barista
- Handled cash transactions at a high throughput store
- Processed inventory during multiple shipments a day
- Provided exceptional customer service
- Passed FoodSafeBC certification to prepare food
- Attended and completed workplace human resources training

Your work experience should be related. The focus is on tech jobs. If you have non-tech experience, it's okay to include a line or two, but not more then that.

PROJECT EXPERIENCE

Ticket Reservation Syst
CMPT 3201
- Created system to reserve seats in a local theater using agile software dev
methodologies

The reader probably hasn't gone to your school list course names

Tech experience should have more lines. Actual practical applications like school projects are great opportunities to highlight skills and technologies

EXAMPLE RESUME

Nelson Bighetti
1532 Mission St. San Francisco CA 94103
415-555-8472
tokengiggles@yahoo.com

Skills should be at the top, ordered from most proficient to least proficient.

If you list it here, I can test you on it.

SKILLS

- Java, Python, C, Objective-C, Haskell, Scala, Ruby, Brainf**k, Scheme, Assembly, BASH, CSH
- Microsoft Word, Microsoft Powerpoint, Microsoft Windows, Mac, Excel, Linux,
- Compassionate Listening and Leadership
- English and Spanish

INTERESTS

- Cards against Humanities or Dungeons and Dragons
- Swimming
- Tractors and farm equipment maintenance

REFERENCES

- Available upon request

Interests should be related to the position. ie. Products that you use from the company, or computer technologies you play with on your free time. Otherwise leave this off your resume

Why bother writing this? I will ask you for references later regardless if this is here.

EXAMPLE RESUME

Nelson Bighetti
nelson.bighetti@yahoo.com

415-555-8472

github.com/nelsonb
linkedin.com/nelsonb

SKILLS

- Languages: Java, Python, C/C++ with some experience in HTML5 and Javascript
- Software: MySQL, Git, Subversion, Django, Node, pthreads and TCP/IP stacks, OpenCV
- Technology: Relational Databases, Low Level Networking Protocols, Computer Vision

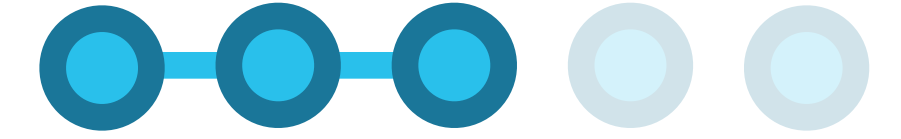**RELATED EXPERIENCE**

Ticket Reservation System   September 2015

CMPT 3201 - Software Engineering II

- Led an agile team through designing, programming and testing a seat reservation system
- Implemented an internal API between system processes used by all team members
- Developed a multi-process pthread based user interface completely in UIKit
- Improved efficiency of seat signups by streamlining user signup experience by 20% over traditional methods.

GETTING TECHNICAL

EXAMPLE RESUME

Nelson Bighetti

nelson.bighetti@yahoo.com

415-555-8472

github.com/nelsonb
linkedin.com/nelsonb

Reasonable email

Github is an auto portfolio

LinkedIn is required for your online presence

SKILLS

Most experienced to least experienced

Separated by type

- Languages: Java, Python, C/C++ with some experience in HTML5 and Javascript
- Software: MySQL, Git, Subversion, Django, Node, pthreads and TCP/IP stacks, OpenCV
- Technology: Relational Databases, Low Level Networking Protocols, Computer Vision

RELATED EXPERIENCE

Ticket Reservation System

September 2015

CMPT 3201 - Software Engineering II

Class has description

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EXAMPLE RESUME

Nelson Bighetti

Reasonable email

nelson.bighetti@yahoo.com

415-555-8472

Github is an auto portfolio

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linkedin.com/nelsonb

LinkedIn is required for your online presence

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Most experienced to least experienced

Separated by type

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RELATED EXPERIENCE

September 2015

Ticket Reservation System

CMPT 3201 - Software Engineering II ← Class has description

- **Led** an agile team through **designing, programming and testing** a seat reservation system
- **Implemented** an **internal API** between **system processes** used by all team members
- **Developed** a **multi-process pthread** based **user interface** completely in **UIKit**
- **Improved** efficiency of seat signups by **streamlining** user signup experience by **20% over traditional methods.**

Technical experience has focus, details, and keywords

Action words

GETTING TECHNICAL

EXAMPLE RESUME

Nelson Bighetti
nelson.bighetti@yahoo.com

415-555-8472

RELATED EXPERIENCE (Continued)

Help Documentation   June 2015

LibreOffice.org

- Submitted a pull request for the popular open source to update support documentation
- Participated from concept, feedback and deployment of HTML based in-app help documentation
- Received the support of the lead customer service developer while reducing file size by 13%

Barista   June 2014 - Present

Starbucks

EDUCATION

University of Tratador   May 2016 (anticipated)

Bachelors of Applied Science - Computing Science

Related Courses: Algorithms, Deep Learning, Networking, Linear Algebra, Computer Vision

EXAMPLE RESUME

Nelson Bighetti
nelson.bighetti@yahoo.com
415-555-8472

RELATED EXPERIENCE (Continued)

Unpaid projects are awesome, even a single pull request

Help Documentation

June 2015

LibreOffice.org

- **Submitted** a pull request for the popular open source to update support **documentation**
- **Participated** from **concept, feedback and deployment** of **HTML based** in-app **help documentation**
- **Received** the support of the **lead customer service developer** while reducing **file size by 13%**

Barista

June 2014 - Present

Non-technical skills included but briefly

Starbucks

Always include anticipated graduation date

EDUCATION

University of Tratador

Good GPA? Include it with scale…
Average GPA… skip it!

May 2016 (anticipated)

Bachelors of Applied Science - Computing Science

Related Courses: **Algorithms, Deep Learning, Networking, Linear Algebra, Computer Vision**

EXAMPLE RESUME

Nelson Bighetti
nelson.bighetti@yahoo.com

AWARDS

Sophos Annual Computing Science Scholarship   September 2014

Simon Fraser University

- Offered on the basis of excellent academic standing, and ideally academic or industry experience in software security
- Submitted winning prototype of in-memory heuristic scanning application which improved targeting of in-memory malware by 2%

GETTING TECHNICAL

EXAMPLE RESUME

Nelson Bighetti
nelson.bighetti@yahoo.com

AWARDS

Sophos Annual Computing Science Scholarship   September 2014
Simon Fraser University

- **Offered** on the basis of excellent academic standing, and ideally academic or industry experience in **software security**
- **Submitted** winning prototype of **in-memory heuristic scanning** application which improved targeting of **in-memory malware** by **2%**

Got an award? Include it. If technical, discuss it!

Technical experience has focus, details, and keywords

If you got it, flaunt it!

Honors
Publications
Apps in App-Store
Conferences
Placement Tests/Exams
Computer Groups

GETTING TECHNICAL

WHAT DOES THE INTERVIEW PROCESS LOOK LIKE? Co-op

Startups	Mid-Sized Companies	Large Companies
▸ Employee Email	▸ Recruiter Email	▸ Recruiter Call
▸ Online Question	▸ Online Question	▸ Online Question
▸ Phone Interview	▸ Phone Interview x2	▸ Phone Interview x 2
▸ In Person Interview	▸ In Person Interview??	▸ In Person Interview??

WHAT DOES THE INTERVIEW PROCESS LOOK LIKE? New Hire

Startups	Mid-Sized Companies	Large Companies
‣ Employee Email	‣ Recruiter Email	‣ Recruiter Call
‣ Online Question	‣ Online Question	‣ Online Question
‣ Phone Interview	‣ Phone Interview	‣ Phone Interview x 2
‣ In Person Interview	‣ In Person Interview x 4	‣ **FLIGHT!!!! Passport?**
		‣ In Person Interview x 4

Lunch isn't lunch! Be on your best behaviour!

GETTING TECHNICAL

TECHNICAL INTERVIEWS ARE

NOT

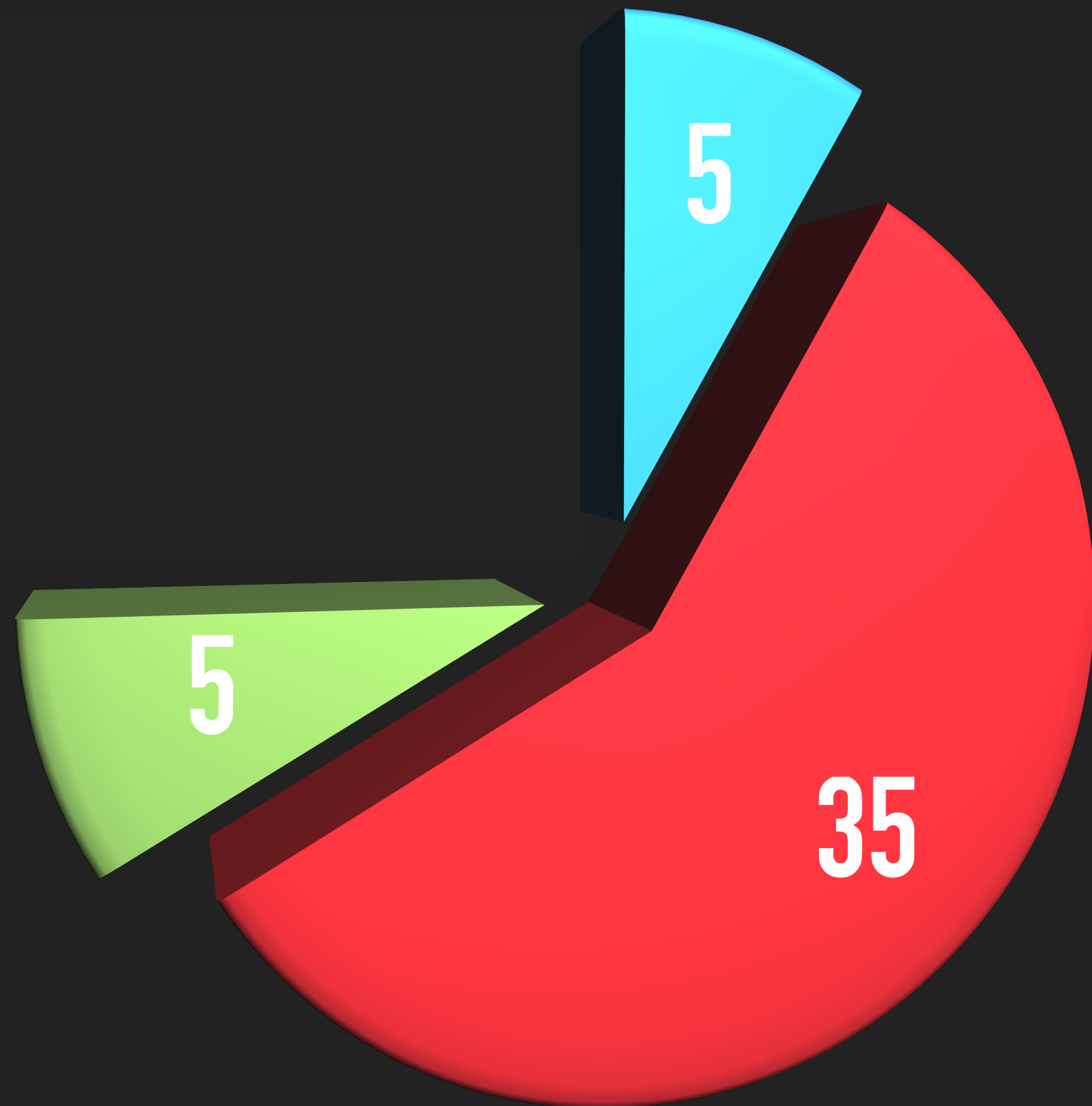LIKE TESTS

TECHNICAL INTERVIEWS ARE

AUDITIONS OR CONVERSATIONS

TECHNICAL INTERVIEWS

▸ Technically strong

▸ Has the skills and interest

▸ Good Coworker

▸ AKA: Do I want to work with you?!

TECHNICAL INTERVIEWS

5 Mins: Tell Us About Yourself

▸ This is for you to relax

▸ You know you, be your own cheerleader

35 Mins: Technical Question
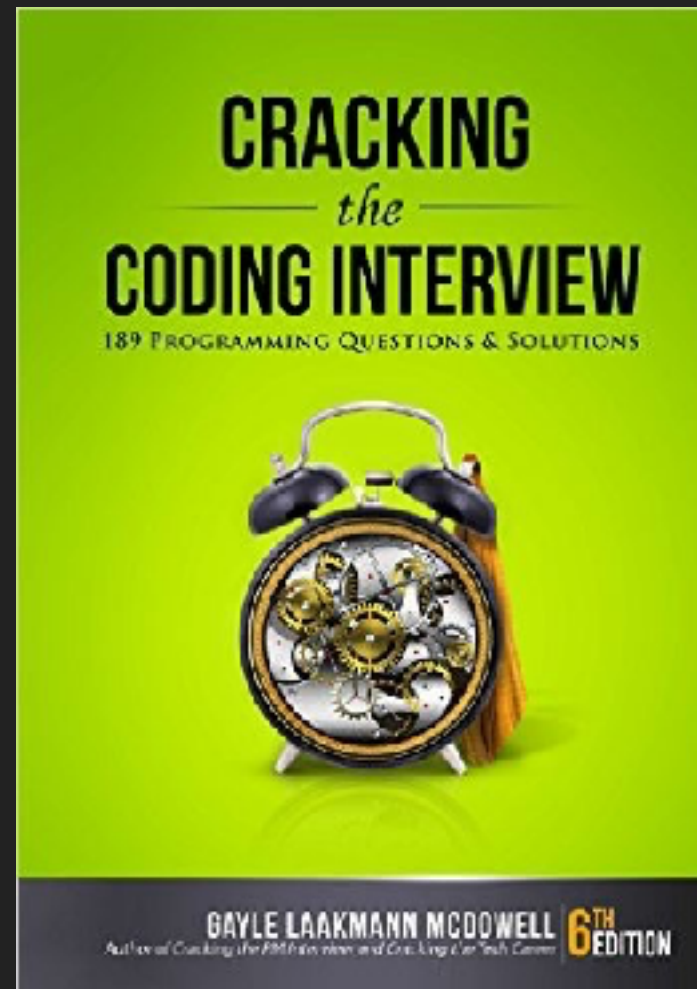
▸ We'll get to this… next

5 Mins: Ask Us Questions

▸ You should always ask a question!

▸ Tip: Ask what an average day is like!

HAVE THESE ANSWERS READY . . .

▸ What's your strongest programming language?

▸ What technologies are you interested in?

▸ Tell me a little bit about yourself?

▸ Why do you want to work here?

▸ Tip: Interviewers hardly look at your resume… be quick to summarize it for them.

▸ Tip: Back to back interviewers will often repeat questions… just smile and repeat!

WHAT ARE THE TECHNICAL QUESTIONS!!!!!!!

Cracking the Coding Interview
4th Edition or newer

It's a Book!

HackerRank.com
Practice coding live!

VisuAlgo.com
Visualize Common Algorithms
and Data Structures

IDEAL QUESTIONS HAVE LEVELS…

▸ A naive answer - Co-op level

▸ A common answer - Standard level

▸ An expert answer - Experts/Senior level

IDEAL QUESTIONS HAVE VARIANTS…

▸ Do it on a device with tiny memory

▸ Do it on a device with slow processor

▸ Do it with a poor network connection

GETTING TECHNICAL

WHILE CODING…

▸ Plan your attack before coding

    ▸ Identify problem

    ▸ Identify data structures needed

    ▸ Identify error cases!

▸ Ask questions early and often

▸ Write functions for areas that aren't on the top of your head
(ie. searchString(x, forY) // Implement later)

▸ Always look at the complexity of your algorithm

▸ When in doubt… **USE A HASHMAP!   O(1) FTW**

PROFIT

RESUME WORKSHOP

- USE SIGNUP FORM TO GET A TIME

- OR TRY DROPPING IN IF YOU DON'T MIND WAITING FOR A NO-SHOW

- OR DROP PAPER RESUME AT ROOM AND GET EMAIL WITH MARKED UP PAGE

GETTING TECHNICAL