

Interviewwinning

How to ace a technical interview without breaking a sweat

Torla Gibbs

August 9, 2015

Agenda

Who dat?

The Application Process

The Technical Interview

Tips for Success

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The Application Process

The Technical Interview

Tips for Success

Practice Problem

Who Dat?



Toria Gibbs

Software Engineer, Etsy Inc.



Toria Gibbs

Software Engineer, Etsy Inc.

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1500

Resumes screened

200

Technical interviews conducted

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- Research companies, reach out to your network
- Apply apply apply
- Include a cover letter
- Track your applications
- Wait Repeat



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Tips for a great technical resume

You have 1 minute to impress your technical reviewer!

- Highlight languages and technologies
- Frame non-tech experience as 'problem solving' experience
- Keep it short and simple
- Use images and infographics
- Don't include references
- Don't include an objective (unless it's really awesome)

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EDUCATION

University of Waterloo
Bachelor of Computer
Science 2022

EXPERIENCE

Bloomington UP (2019 - present)
Software Developer
• Designed and developed new curve generation
system (C++, SQL, shell scripting, database)



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EDUCATION

University of Waterloo
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Science 2010

Co-operative Education

Bloomberg LP

Sept-Dec '09

Bloomberg LP

Jan-Apr '09

Barcalays Capital

May-Aug '08

B Sharp Technologies


Sept-Dec '07

EXPERIENCE

Bloomberg LP (2010 – present)
Software Developer

- Designed and developed new curve generation system (C++, SQL, shell scripting, database design)
- Managed the expansion and release of Bloomberg's regulatory accounting product, coordinating 15 developers across 5 teams and interfacing with managers from 3 business areas (C++, project management)
- Took ownership of equity derivatives volatility tools
 - Re-wrote historical volatility back-end from scratch, made improvements to UI (C++, JavaScript)
 - Created new intraday volatility UI with real-time updates, worked closely with Charts development team to pioneer the use of a new internal technology for populating custom data to charts in real time (C++, JavaScript, internal tools)

TECHNICAL SKILLS



ADDITIONAL SKILLS

- Comfortable speaking to large audiences (current level: 500)
- Experience mentoring interns and junior programmers
- Basic communication skills in French

FUN FACTS

- Can knit, sew, crochet, and paint glass/therianics
- Loves cats (but two)
- Strategy board game enthusiast

Infographics!

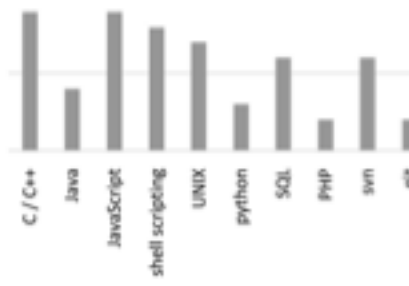
- Visual representation of information
- Humans are good at visual pattern recognition
- Convey lots of information in minimal time

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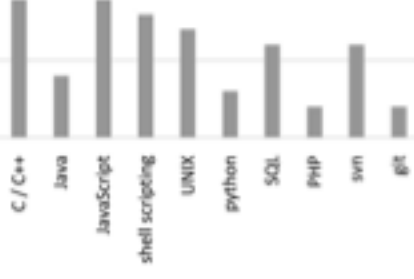


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Do include some "other" skills!

Don't forget the fun stuff!

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Apply apply apply

- Use your network
- Let friends and family know about your job hunt
- Search for people on LinkedIn to find connections

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- Use your network
 - Let friends and family know about your job hunt
 - Search for people on LinkedIn to find connections
- Write a new cover letter for each job
 - Why do you want to work here?
 - Any related experiences that didn't make it onto your resume?

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The Technical Interview

The Technical Interview

Stages of a technical interview

- Phone screen
- In-house interview
 - Technical rounds
 - Management round
 - HR round

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Recruiter call (optional)

Resume discussion

Recruiter call (optional)

Resume discussion

Questions



Phone screen

Resume discussion

Coding (screen share software) OR describe solutions

Questions



Resume discussion

Coding (screen share software) OR describe solutions

Questions



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In-house

Technical rounds

Management round

HR round



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Sample in-house interview (Part 1 of 2)

- Technical round 1 (1 hour)
 - Resume discussion
 - Problem solving, coding questions
 - Questions
- Technical round 2 (1 hour)
 - Repeat above

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Sample in-house interview (Part 2 of 2)

- Management round (30 minutes)
 - Resume discussion
 - Questions
- HR round (30 minutes)

Sample in-house interview (Part 2 of 2)

- Management round (30 minutes)
 - Resume discussion
 - Questions
- HR round (30 minutes)
 - Soft skills
 - Questions: salary, benefits, start date

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Offer acceptance



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Tips for Success

Resume discussion

- “Tell me about yourself” (brag)
- Be prepared to defend anything on your resume: languages, technologies, experience

Resume discussion

- "Tell me about yourself" (brag)
- Be prepared to defend anything on your resume: languages, technologies, experience
- Ok to pause ("let me think about that")

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Problem solving & coding questions

- Understand the question
- Pseudocode or pick a language
- Start simple: go with the obvious solution, state assumptions
- Handle edge cases, optimize for performance (speed or memory)
- Step through the code, discuss testing

```
int findMedian(int array A)
{
    sort(A)
    return A at  $\lceil \frac{\text{length } A}{2} \rceil - 1$ 
}
```

```
int findMedian(int[] A)
{
    A.sort();
    return A[Math.ceil(A.length/2)-1];
}
```


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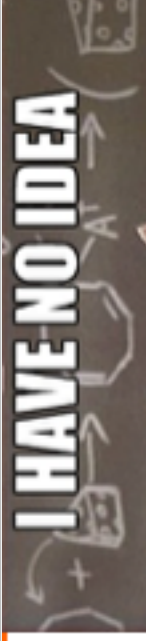
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Some other “technical” questions

- **Data structures** “What data structure would you choose to store web browser history?”
- **Program design** “How would you go about designing an online PvP Battleship game?”
- **Brain teasers** “A windowless room has 3 light bulbs, you are outside with 3 switches. You can only enter the room once. How do you tell which switch controls each light?” (bad)
- **Unsolvable word problems** “How many boats can travel the length of the Long Island Sound in a day?” (not so bad)

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I HAVE NO IDEA



It's ok to not know!

Ask for clarification

Explain how you would find the answer

Recover gracefully



Practice Problem

Reverse the digits of an integer

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Simple Solution (JavaScript)

```
function reverseDigits(n) {  
  var s = n.toString();  
  var rev_s = s.split('').reverse().join('');  
  return Number(rev_s);  
}
```

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Can you make it better?

Better Solution (C++)

```
int reverseDigits(int n) {  
    int result = 0;  
    while (n > 0) {  
        int digit = n % 10; // modulo (remainder)  
        result = result*10 + digit;  
    }  
    return result;  
}
```

```
int result = 0;
while (n > 0) {
    int digit = n % 10; // modulo (remainder)
    result = result*10 + digit;
}
return result;
}
```

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Why is it better?

Performance: how many loops are really in there?

Memory: string array vs. integer

Language: interpreted vs. compiled

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How would you test it?

Numbers with zeros (0, 10, 2015)

Negative numbers

Really large numbers



VID VOIP CODE LOOVE



Thank You

Free Resources

- Code Academy ([codecademy.com](https://www.codecademy.com))
- Coding Bat (codingbat.com)
- Daily Programmer (reddit.com/r/dailyprogrammer)
- Project Euler (projecteuler.net)

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