WOMEN WHO CODE TORONTO

Acing Technical Interviews & Algorithms Study Night

Rana Al-Badran & Rebecca Qu

Wifi: TBD Password: TBD

Our Host

Next Meetup:
Thursday, November 2nd

Clojure @ scribble LIVE

@WomenWhoCodeTO

Our Guest

HIRED

Hired and Women Who Code Team Up to Fight the Gender Gap in Tech

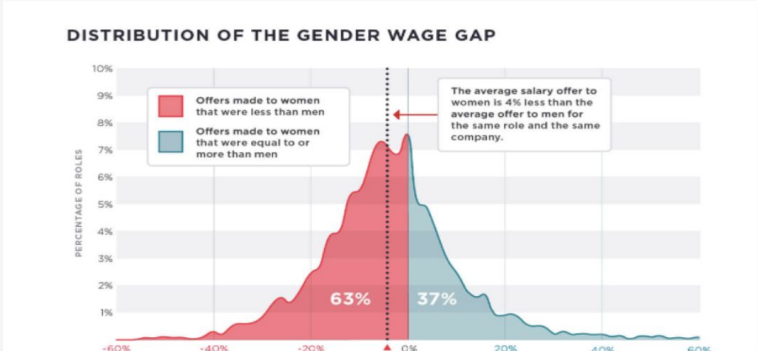
PRESS RELEASES

10.04.2017

written by

Janet Ikpa

Women make up 25% of the STEM workforce in the US. The numbers in computer science and engineering are even lower. At Hired, our unique data provides additional insight into factors contributing to the underrepresentation of women in the technology industry. For example for 53% of technical positions, companies interviewed only male candidates for a given role, whereas the reverse was true just 6% of the time.



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HAVE YOU JOINED SLACK?

Get updates first! Special giveaways on Slack

bit.ly/WWCTOSlack

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A Few Words

Recursion

WWC TO: Algorithm Study Nights

@BeksQu

What is Recursion?

★ a concept / a way to solve a problem

Algorithmically: a way to design solutions to problems by divide-and-conquer

➔ reduce a problem to simpler version of the same problem

In Programming: a technique where a function calls itself

➔ goal is to *not* have infinite recursion

➔ must have one or more base cases

CM 690
CW 690

Why do we care about recursion?

- ➔ No performance benefit; sometimes loops (iterative approach) are more performant

   on performance: https://tinyurl.com/y7chdugg

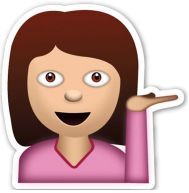
- ➔ Recursion makes code easier to read & understand
- ➔ Many important algorithms use recursion

BUT SRSLY, wut recursion doe?

When a function calls itself … until it doesn't

Story Time: A King & His Rocks

Thelonius



You

Bernard

Gus

Example: Factorial

```
factorial(5) = 5 * 4 * 3 * 2 * 1
```

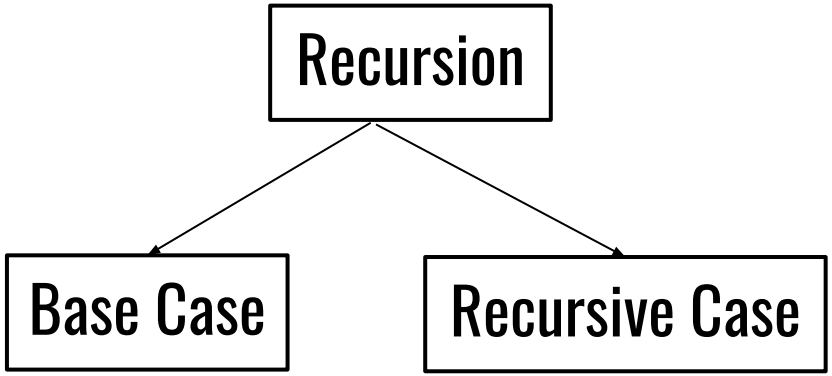
```
factorial(5)
  = 5 * factorial(4)
```

Example: Factorial

```
factorial(5)
  = 5 * factorial(4)
        = 4 * factorial(3)
              = 3 * factorial(2)
                    = 2 * factorial(1)
```

```
factorial(5)
  5 * 24 = 120
    4 * 6 = 24
      3 * 2 = 6
        2 * 1 = 2
```

Example: Factorial




```ruby
def factorial(num)
  if num <= 1
    1
  else
    num * factorial(num - 1)
  end
end
```

```
0! = 1
1! = 1
```

```
num * factorial(num - 1)
```

Let's practice some recursion...

github.com/RebeccaQu/AlgorithmsStudyNight

Keep learning...don't give up!

- **Grokking Algorithms**: An illustrated guide for programmers and other curious people
- **King & His Rocks Story**: https://tinyurl.com/y9zerbez
- **Free Code Camp**: https://tinyurl.com/y7hogtnr
- **MIT Recursion Lecture**: https://tinyurl.com/ybkcmjut
- **Khan Academy**: https://tinyurl.com/pxx8o6a
- **The Odin Project**: https://tinyurl.com/y8cms3v7
- **Recursion vs. Iterative**: https://tinyurl.com/yal5c7j5

It's not that I'm so smart, it's just that I stay with problems longer.

- Albert Einstein

Huge thanks to

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Thank you for having us!

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Thank you Beks!

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