

# HCI & ACCESSIBILITY

**Lucy Jiang** 



# HELLO!

I'm Lucy Jiang, a fourth year studying computer science and entrepreneurship at the University of Washington.



### WHAT WE'LL COVER TODAY

#### + Introduction

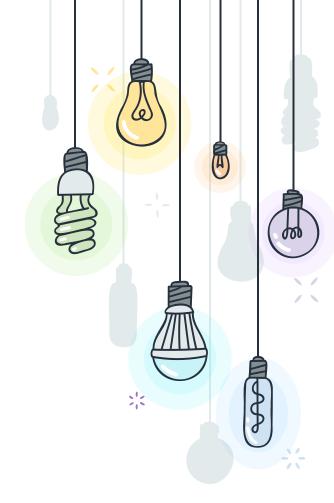
× Who am I, and how did I get here?

#### + Research Overview

- × What is CS research like?
- × HCI and accessibility

#### + Final Thoughts

× Computer science and our future





## INTRODUCTION

Who am I, and how did I get here?



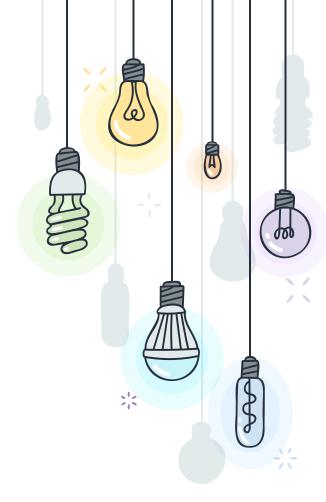
#### BEFORE ENTERING UW

- Attended Redmond High School
  - × In the center of Microsoft-land
- + Academic / career interests
  - Healthcare (specifically pediatrics)
  - × Not computer science!
- + Applied to summer internships
  - imes Was rejected from all of them  $\overline{m{\cdot}}$



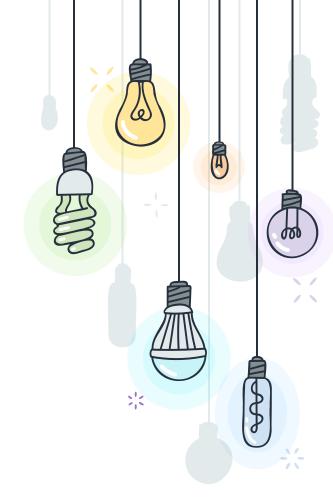
### GETTING INTO UW

- Knew I wanted to do STEM
  - × Took AP CS, but wasn't super excited about computer science yet
- + Applied for UW CS just for fun
  - Had no serious intention of coming to UW and studying CS
- Accepted as a Direct Admit to CSE



#### DISCOVERING ACCESSIBILITY

- Attended an accessible technology
   lecture during Startup (EFS)
  - Began thinking about CS and how it could be applied to do social good
- Reached out to the professor
  - Signed up for a research reading seminar in my first quarter
  - × It was overwhelming but fun!



### FINDING MY PASSION IN CS

- Also did a couple of software engineering internships
  - While the pay was quite nice, I realized I wasn't actually passionate about the work I was doing
- Wanted to work on something that would make the world a better place
  - × Similar to healthcare in some ways





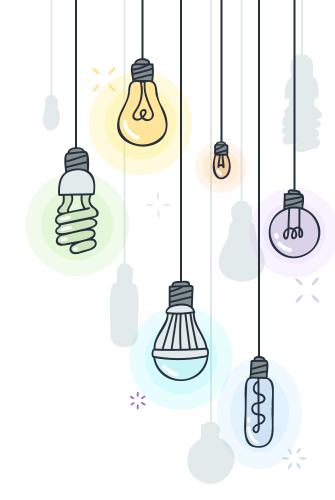
## RESEARCH OVERVIEW

What is CS research like? HCI and accessibility



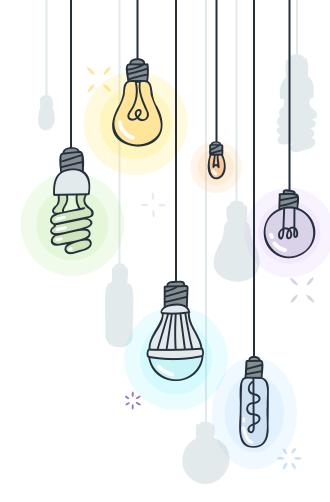
## WHAT IS CS RESEARCH?

- \* Research focused on computers
  - × Systems
  - × Algorithms
  - × Machine learning
- + Research with CS applications
  - × Human-computer interaction
  - × Social computing
  - × Any other field too!



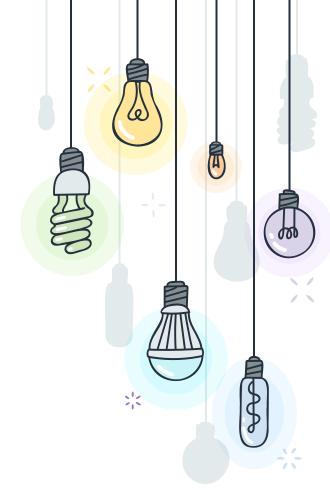
#### RESEARCH LOGISTICS

- + Structure
  - Usually undergrads work closely with grad students
  - × Meetings with the whole lab / professors on a weekly basis
- Resources to get involved
  - × CSE 390R (new research seminar)
  - × Undergraduate Research Program



#### PERSONAL PATHWAY

- Became involved in the InclusiveDesign Lab with Dr. Leah Findlater
  - Initially started as one of three undergrads in a HCDE Directed
     Research Group (DRG)
  - Focused on accessibility, specifically for blind and low vision folks
  - × Worked on existing unfinished projects





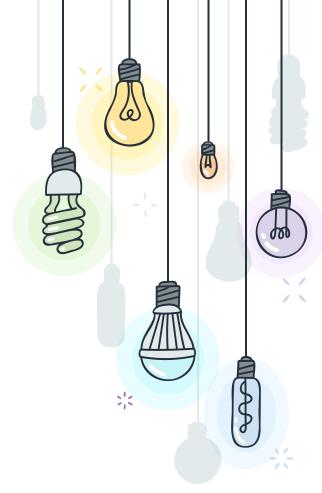
# Interactive Sound Design for Auditory Websites (existing)

Understanding how sound designers would redesign websites to convey information solely through audio

## Social Media through Voice (new)

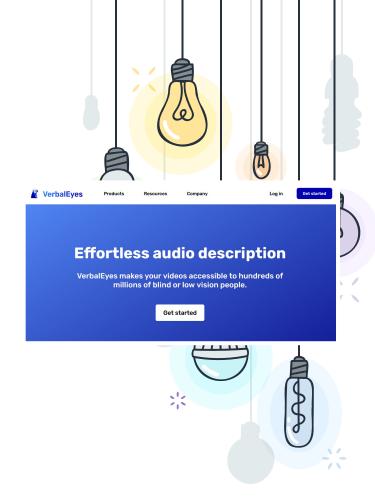
A question that I proposed myself!

Understanding how people prefer to represent themselves via voice on social media



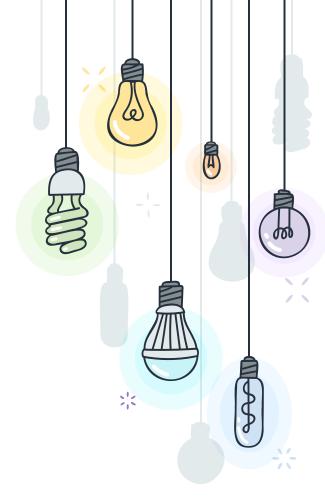
#### FURTHER EXPLORATION

- Worked with peers to build an accessibility-focused product
  - Creating a Company course sequence (Winter / Spring 2021)
  - Drew on my research skills to do user and customer research
  - Prioritized my interest in research rather than software engineering



### SENIOR THESIS

- Currently finishing up my senior thesis,
   focusing on audio description access
  - Specifically, understanding how to support blind and low vision writers in writing audio descriptions
  - × Advised by Dr. Richard Ladner
  - A continuation of the work that we are doing for our company, VerbalEyes





## CONCLUSION

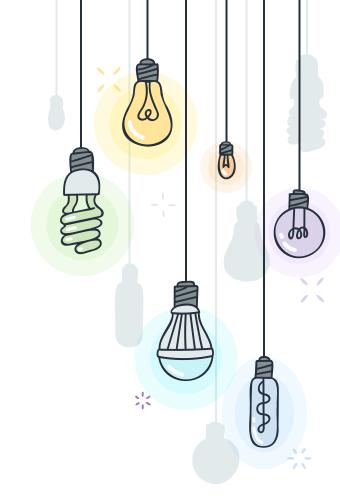
Computer science and our





## SOCIAL IMPACTS OF CS, AT SCALE

- + CS can be used to
  - × Empower and enable people
  - × Democratize information
  - × Optimize healthcare
  - × Support our environment
- But it can also be used to
  - × Harm and abuse people
  - × Spread misinformation



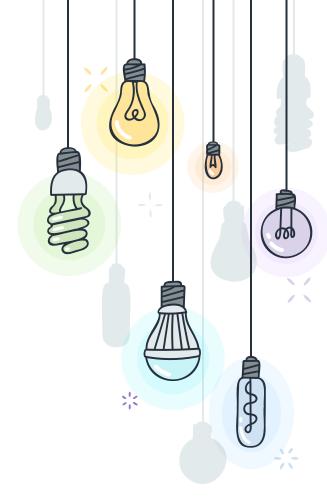
#### REFLECTION

- I started out thinking that I would change majors
  - × But once I saw how CS could change lives, I became interested in studying innovative applications of technology
- Society needs diverse computer scientists to create technology that serves diverse users



### SO... WHAT NOW?

- + Find ways to get involved!
  - × Work on passion projects
  - × Take CS courses if they're offered (but don't worry if they're not)
  - × But also, enjoy high school!
- Consider applying for UW CS!
  - It was one of the best "mistakes" that I have ever made





# THANK YOU!

Feel free to reach out to me, either to ask any questions or just to chat!



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