

# Summer Internships

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2022 Grad Cohort for IDEALS



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# About Merrie



## Education:

- Sc.B. in CS, Brown University
- Ph.D. in CS, Stanford University

## Career:

- 2006-2021: 15 years at Microsoft Research
  - Founder of Ability research team
  - Research Area Manager for HCI
- 2021-Now: Director & Principal Scientist of People + AI Research (PAIR) team at Google Research
- Affiliate Professor, University of Washington, Paul G. Allen School of Computer Science and Engineering
- SIGCHI Academy, ACM Fellow
- Has mentored ~60 interns at Microsoft & Google

# About Cindy



## Education:

- A.B. in Applied Math, Harvard University
- Ph.D. in CS, MIT

## Career:

- At Sandia National Laboratories since 1990
  - Currently senior scientist (about 50 out of 14k)
- Combinatorial optimization, parallel computing, data science, streaming, co-design, security, graph algorithms, applications, ....
- Theory, experiments, applications
- SIAM fellow and ACM distinguished scientist
- Have supported undergraduate and graduate interns (usually at most one per year), but Sandia has a healthy program.

# Practical Value of Internship

- Experience
- Improve resume (+ papers)
- Try out potential career alternatives
  - Industry
  - National Laboratory
  - Academia (teaching internship)
- Live in a different area
- See different work environments
  - research, product, etc.
- Sharpen your research area at school
- Widen professional circles (another letter writer)



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# Decision for an Internship

- Will it take away or enhance your dissertation research?
- Is it the right time?
  - Do you need the time to complete the writing of your dissertation?
  - Are there publication deadlines you might miss?
- Is it the right kind of internship?
  - Will it build up your skill set?
  - Will it lead to publications?



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# Getting Started: Finding An Internship

- Common Intern Hiring Windows
  - November
  - February
- Professors and advisors contacts
- Apply to / through large national programs (SHPE, NSBE, NACME, etc.)
- Career Centers
- Network!
  - Conferences
  - Career fairs
  - Professional meet-ups

# Preparing your application materials and yourself

- Get your web page up-to-date –highlight experience
  - Link in a copy of your CV (get critiques)
- Create a LinkedIn page
- Do mock interviews
- Identify at least three references
- Develop and practice an ‘elevator pitch’
- If on a visa, know what paperwork is expected

# Interview: Putting Your Best Foot Forward

- Before the interview
  - Ask about the format of the interview
  - Research the company/group/personnel
- The Interview
  - Show motivation and enthusiasm
  - Ask clarifying questions
  - Ask about particular projects
  - Talk through as you answer technical/complicated questions
  - Be ready to ask a few questions of each interviewer
  - Ask about their decision timeline
- After the Interview
  - Send thank you notes to the folks that you meet
  - Follow up in ~1 month



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# Interview: Common Questions

- What are your strengths/weakness?
- Tell me about your research?
- What is the largest project you worked on? What was your role?
- Give an example of how you handled a difficult situation
- Puzzle/Brain teaser
- Coding Challenge



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# Now That You Got the Job, What's Next?

- Before the Start Date
  - Ask what to prepare
  - Agree start/end + any necessary time off
- On the Job
  - Do a good job!
  - Understand expectations and deliverables
  - Keep your supervisor informed of your progress
  - Interact with the people around you (learn the culture)
  - Attend talks and seminars
  - Work independently but don't be afraid to ask for help
  - Have fun!



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# Post Internship: What's Next?

- Keep in touch with host, recruiters, etc.
- Ask about the hiring process for full time
- Ask about the potential for returning next year
- Write a paper about the work



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# Exercises to try back at school



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# Exercise #1: The Elevator Pitch

## Elevator Pitch Requirements:

- Duration should be no more than 60 seconds
- Sections should include
  - Problem area background / motivation
  - Problem statement
  - Technique created / used
  - Results
  - Conclusions

## Exercise Activity:

- Form groups of your peers / advisors
- Practice giving elevator pitch
- Group members help critique with a focus on 3 areas
  - Clarity
  - Timeliness
  - Story Completion



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# Exercise #2: Mock Interviews

- Pair up with one person.
- Play the interviewer and the other the interviewee
- Then switch roles
- Format
  - 5 minute questions
  - 3 minute feedback



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