



## Welcome!



*Dan Garcia (CMW E)  
Lavanya Ramakrishnan (CMW L)  
Jaime Moreno (CMW I)  
Holly Rushmeier (CMW R)*



**CRA-WP**

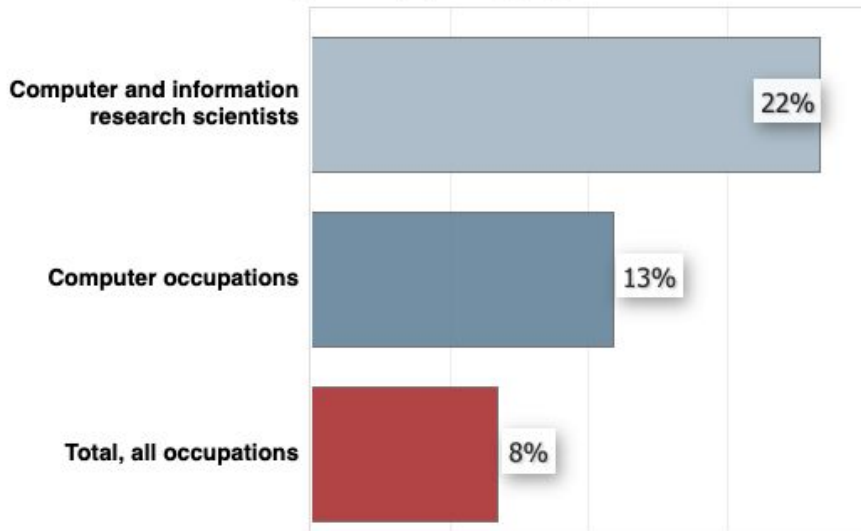
Computing Research Association  
Widening Participation

# WHY CRA-WP?

Help achieve equity, accessibility and inclusion in Computer Research

## Computer and Information Research Scientists

Percent change in employment, projected 2020-30



Note: All Occupations includes all occupations in the U.S. Economy.

Source: U.S. Bureau of Labor Statistics, Employment Projections program

*The expressed identities of the individuals we serve include:*

- Women
- Black/African American
- Native American/ Alaskan Native/ Pacific Islander
- Hispanic/Latinx
- Lesbian, Gay, Bi-Sexual, Trans, Queer, Asexual, Intersex, and others
- Persons with disabilities
- Veterans

***CRA-WP is committed to supporting all communities in computing research.***



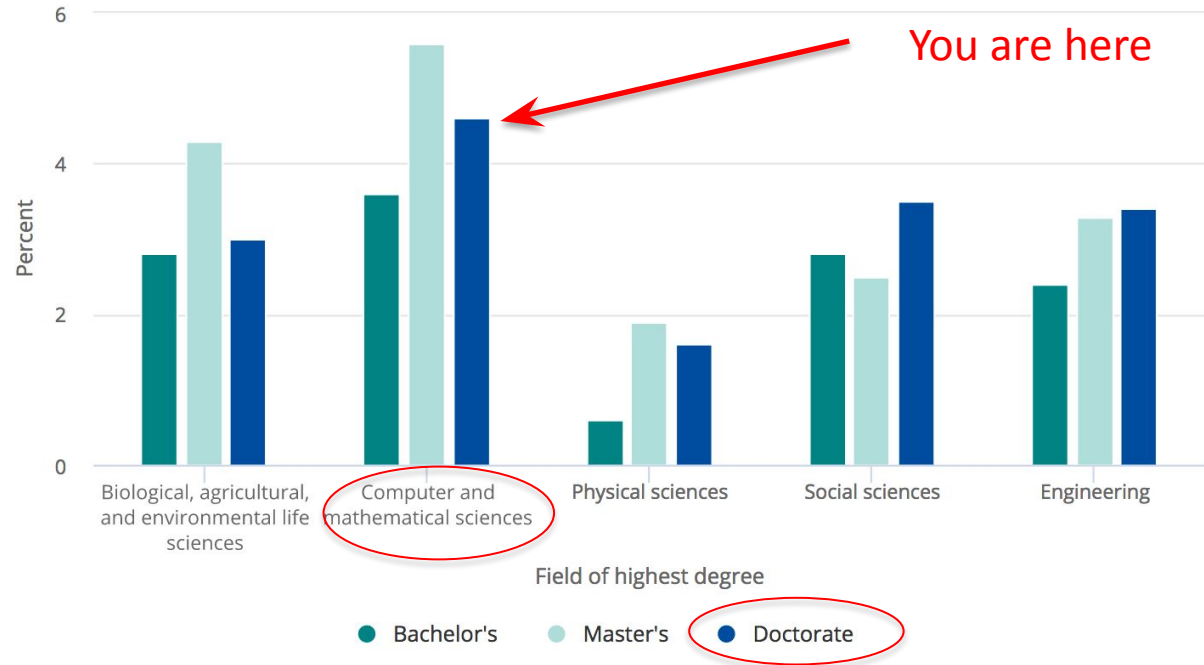
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# WHAT?

Increase participation in jobs that shape the world and compensate well

Average annual growth in the total number of employed individuals with highest degree in S&E, by field and level of highest degree: 2003–15



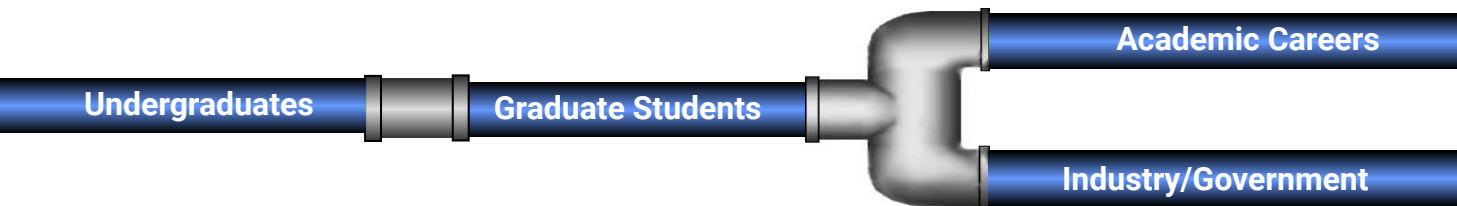
## Source(s)

National Science Foundation, National Center for Science and Engineering Statistics, Scientists and Engineers Statistical Data System (SESTAT) (2003), <https://www.nsf.gov/statistics/sestat/>, and National Survey of College Graduates (NSCG) (2015), <https://www.nsf.gov/>

# HOW?

## INDIVIDUAL & GROUP RESEARCH MENTORING

- Undergrads: Distributive Undergraduate Research Experiences
- Graduate students mentoring: Grad Cohort for Women, IDEALS
- Industry professional mentoring to return to graduate school: CSGrad4US
- PhD Researchers: group mentoring of early & mid career professionals
  - *Career Mentoring Workshop (CMW)*, sessions at GHC and at Tapia
- Hundreds of students and PhD researchers a year



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# Early/Mid Career Mentoring Workshop - Why

Help increase the percentage of Computer Science and Engineering faculty members and research technologists

- who are from historically underrepresented groups
- who aspire to reach the top of their respective career tracks.

Participants have already entered the workforce



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# Early/Mid CMW - What

- Enable participants identify their individual career needs and goals, and take concrete steps toward success in their career path/promotion.
- Augment participants' knowledge of effective career management strategies for their career stage -- including effective communication, having a mentor, and increased visibility.



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# Early/Mid CMW - How

## Four Groups: R - E - L - I

Academia

Govmt/Industry

- All groups have similar needs, but also differences
- Workshop organized in tracks
- Tracks running in parallel, with some combined sessions
- Important that participants across all tracks interact with each other
- Foster collaboration!



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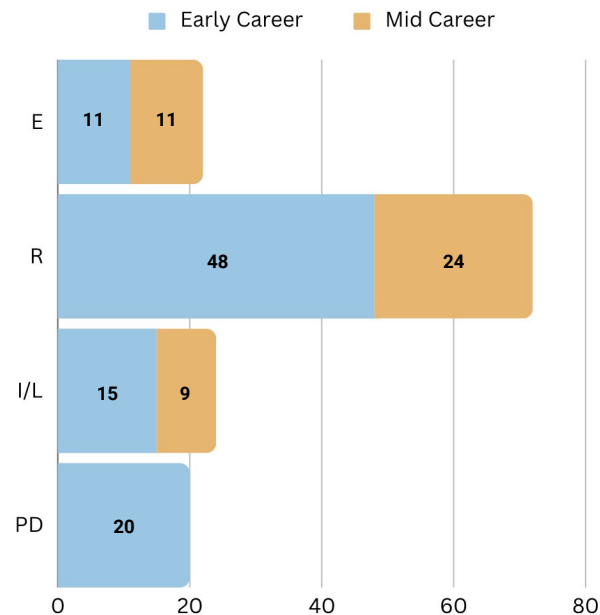
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# Early/Mid CMW 2023 Participants

Mid Career attendees – 43

Early Career attendees – 94

Speakers/Mentors – 32



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# WHILE HERE

## INTRODUCE YOURSELVES

- Speakers
- Participants
- Staff/Volunteers
- Make Connections!



## DOWNLOAD THE APP

Benefits provided by the app:

- Meeting space layout
- Agenda
- Build your own agenda
- Connect with participants
- Program announcements



**Cvent Events**

Cvent

GET



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# SHARED SESSIONS/ACTIVITIES

- **Friday, November 3, 2023**

- Plenary: *Mentoring 101* - 8:20-8:50 am
- Keynote: *Valerie Taylor* - 5:00 pm - 6:00 pm

- **Saturday, November 4, 2023**

- Plenary: *Establishing Partnerships with Industry* - 8:30 - 9:30 am
- Plenary: *Building Your Brand, Influence* - 2:05 - 3:05 pm



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# MENTORING

## Group Mentoring

**Saturday, 8:30 am - 9:25 am**

Engage with speakers and peers to discuss a variety of topics:

- Academic Career Development and Success
- Communication and Professional Skills
- Diversity, Equity, and Inclusion (DEI)
- Grant Writing and Research Funding
- Industry vs. Academia Career Paths
- Interdisciplinary Research and Collaboration
- Job Search and Career Transitions
- Lab Environment and Culture
- Leadership and Management Skills
- Networking and Collaborations
- Research Portfolio and Opportunities
- Teaching and Research Balance
- Tenure and Promotion
- Work-Life Balance and Well-being
- Cybersecurity in Computer Science Education

## One-on-one Mentoring

**Friday, 3:50 pm - 4:40 pm**

**Saturday, 1:00 pm - 2:00 pm**

- Engage with speakers
- Feel free to discuss your resume or CV, if you would like

# LUNCH TOPICS

Topics on different categories

List of topics and corresponding tables can be found on the app and in the meals ballroom



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# ***ENGAGE WITH BPC ALLIANCES!***

*Visit our BPC Alliances tables during breaks and meals*

BPC: Broadening Participation in Computing (<https://bpcnet.org/alliances/>)

# SPEAKERS

Deb Agarwal, *Berkley Lab*

Daniel Aliaga, *Purdue University*

Ann Almgren, *Lawrence Berkeley National Laboratory*

Nancy Amato, *Univ. of Illinois, Urbana-Champaign*

Dorian Arnold, *Emory University*

Tiffany Barnes, *NC State*

Cynthia Bennett, *Google*

Alan Bivens, *IBM*

Amy Briggs, *Middlebury University*

Tracy Camp, *CRA*

Jan Cuny, *Northeastern University*

Lori Diachin, *Lawrence Livermore Lab*

Katherine Evans, *Oak Ridge National Laboratory*

Stephanie Forrest, *UC Davis*

Ann Gates, *University of Texas at El Paso*

Maria Gini, *University of Minnesota*

Soha Hassoun, *Tufts University*

Raja Kushalnagar, *Gallaudet University*

Patty Lopez, *Intel Corporation/NMSU*

Xioaye Sherry Li, *Lawrence Berkeley National Laboratory*

Kathryn Mckinely, *Google*

Kyla McMullen, *University of Florida*

Mark Moss, *Georgia Tech*

Cynthia Phillips, *Sandia National Labs*

Susan Rodger, *Duke University*

Taghrhid Samak, *Meta*

Vivek Sarkar, *Georgia Tech*

Eve Schooler, *Oxford University*

Amanda Stent, *Colby College*

Valerie Taylor, *Argonne National Laboratory*

Jodi Tims, *Northeastern University*

Ellen Zegura, *Georgia Tech*

# CONFIDENTIALITY

- It is important that participants show respect for concerns expressed by others
- Participants should always keep in mind that personal information and views of the participants shared during the workshop are confidential --- and should stay within the meeting
- When discussing specific situations, participants should try to generalize their questions as much as possible
  - *For example, instead of discussing a problem that arose in a compiler class that you took with Professor X at the University of Y, the problem could be described in terms of a project-oriented course that you took the first year in graduate school.*



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# CRA CODE OF CONDUCT

***CRA recognizes the inherent worth and dignity of every individual and group to contribute to its mission. CRA embraces and encourages diversity and inclusion.***

**Unacceptable behavior at CRA activities includes, but is not limited to, discrimination and any form of harassment or retaliation**

**Be thoughtful in all your communications.** “Having no intent to offend” and “joking” do not make unacceptable behavior acceptable.

**Participation in CRA activities is considered a privilege, not a right. CRA reserves the right to:**

- Remove individuals from any CRA activity without warning and without reimbursing or refunding meeting participation costs;
- Prohibit individuals from participating in future CRA activities.

*Please help to make this a welcoming and safe place for everyone!*

***CRA staff designated for confidential reporting:***

*Lauren Lashlee*

*Email: [llashlee@cra.org](mailto:llashlee@cra.org)*

*Alejandra Guzman*

*Email: [aguzman@cra.org](mailto:aguzman@cra.org)*



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# CAREER MENTORING

# WORKSHOP

## ***NETWORK, NAVIGATE, AND ENGAGE!***

- *Take advantage of this opportunity by engaging with all participants speakers, sponsors, staff, etc.*
- *Advocate for your needs, if you require assistance please ask our staff.*
- *There are a few accessibility tables reserved for persons with disabilities in the front and back of each room.*

*Most importantly, ENJOY THE WORKSHOP!*



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# POST-WORKSHOP: *STAY CONNECTED!*

- Connect with participants speakers, sponsors, and staff via email, LinkedIn, etc.
- Consider joining the CRA-WP Facebook and/or LinkedIn Groups
- Sign up for the CRA-WP updates on our website
- Give back and help improve future offerings of this workshop by participating in the evaluation
- Give back by mentoring others and sharing what you've learned here

# THANK YOU, CRA STAFF!

Lauren Lashlee - Program Associate

Alejandra Guzman - Senior Program Associate

Eniola Idowu - Research Associate

Toyamim Rahman - Program Associate

Helen Wright - Program Manager

Kayley McDonald - Program Assistant

Tracy Camp - Executive Director and CEO

Not on-site this time but equally appreciated:

*Janine Myzika - Program Associate*

*Elora Daniels - Communications Associate*

*Daniela Cardenas - Senior Program Associate*

*Curtis Cain - Director of Broadening Participation Initiatives*

*Erik Russell - Director of Educational Initiatives*





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# COMPUTING RESEARCH ASSOCIATION

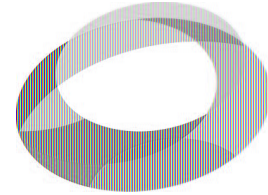
Uniting industry, academia, and government to advance computing research and change the world.



**Tracy Camp**

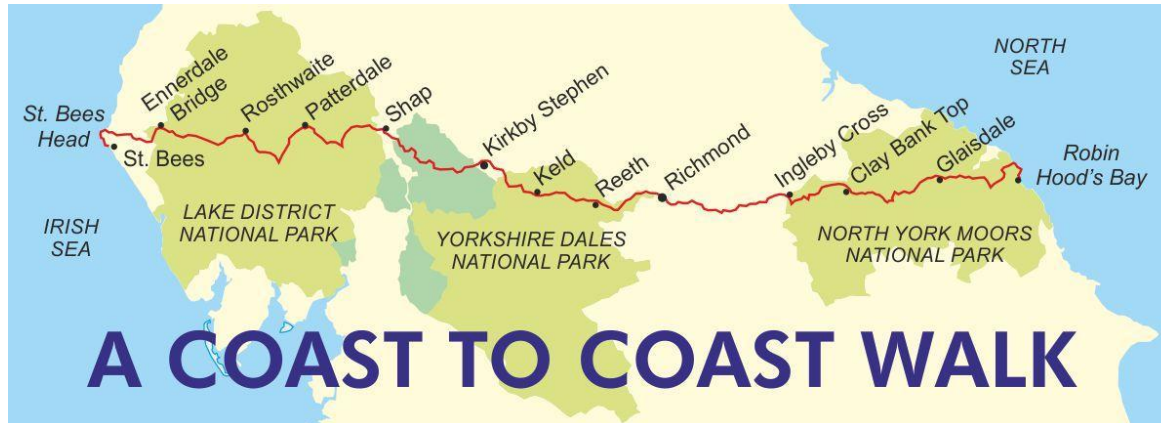
# Emeritus Professor Colorado School of Mines

**CS@Mines**



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Computing  
Association

## Executive Director and CEO Computing Research Association



# WHAT WE DO

Our **mission** is to catalyze computing research by joining with industry, government, and academia.

- **Lead** the computing research community
- **Inform** policymakers and the public
- **Champion** a diverse, welcoming, equitable, and socially responsible computing research community



**CRA**

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Computing Research  
Association

# WHO WE ARE



Our membership  
spans **250+**  
institutions across  
industry, government,  
and academia

# CRA PROGRAMMATIC COMMITTEES



**CCC**

Computing Community Consortium  
Catalyst



**CRA-E**

Computing Research Association  
Education



**CRA-I**

Computing Research Association  
Industry



**CERP**

Computing Research Association  
Evaluation



**CRA-WP**

Computing Research Association  
Widening Participation



**CRA**

Computing Research Association  
Government Affairs

CRA relies on many volunteers that serve on its committees,  
as well as its professional staff, to carry out its programs.



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Computing Research Association  
Government Affairs

**CCC**

Envision and enable the pursuit of computing research  
that aligns with national and global challenges

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Widening Participation



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Computing Research Association  
Government Affairs

**CERP**

Increase diversity in computing research through data,  
evaluation, and community engagement

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CERP

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Evaluation



CRA-WP

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Widening Participation



CRA

Computing Research Association  
Government Affairs

**CRA-E**

Ensure a continuous supply of computing researchers

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Industry



**CERP**

Computing Research Association  
Evaluation



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Computing Research Association  
Widening Participation



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Government Affairs

## **CRA-WP**

Increase the success and participation of  
populations minoritized in computing research

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Computing Research Association  
Evaluation



**CRA-WP**

Computing Research Association  
Widening Participation



**CRA**

Computing Research Association  
Government Affairs

**CRA-I**

Convene industry on computing research  
topics of mutual interest

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Industry



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Widening Participation



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Government Affairs

**GOVERNMENT  
AFFAIRS**

Advocate and analyze policy  
for the computing research community

# WHAT CAN CRA DO FOR YOU?

- Enrichment programs
- Best-in-class events
- Data and insights
- Job advertising and recruiting tools
- Impactful service opportunities
- Awards programs

# ENRICHMENT PROGRAMS

CRA offers a variety of development opportunities for researchers of all career stages





# ENRICHMENT PROGRAMS

CRA offers a variety of development opportunities for researchers of all career stages



## UR2PhD

Engages more women in CS PhD programs through a virtual, nationally-managed approach

## Conquer

Resources for faculty and undergrads interested in research, grad school, and CS research careers

## Outstanding Undergrad Researcher Award

Recognizes outstanding research potential in any area of computing research

**Deadline: Mid Oct**

## DREU

Matches students with a faculty mentor for a summer research experience at the faculty mentor's home institution

**Deadline: Mar 1**



# ENRICHMENT PROGRAMS

CRA offers a variety of development opportunities for researchers of all career stages



## Grad Cohorts

IDEALS and Women Cohorts widen the participation, access, opportunities, and experience of diverse computing research students

**Deadline: Nov 30**



## UR2PhD Mentor Training Program

Training on how to effectively mentor undergrads working on computing research projects in a culturally-responsive manner



## CRA-E Graduate Fellows

Opportunities to get involved in CRA-E activities to gain leadership experience

**Deadline: Feb 10**



## CRA PhD Database

Upload your resume/CV, research, and teaching statements for recruiters to access



## Taulbee Faculty Salary Data

Benchmark against our salary and demographic data for various computing faculty groups in North America



# ENRICHMENT PROGRAMS

CRA offers a variety of development opportunities for researchers of all career stages



## CRA Career Mentoring Workshop

Provides career advice and mentoring activities for junior researchers in computing

**Deadline: Early Dec**



## Teaching Faculty PD and Careers Workshops

Informs grad students and post-docs about academic teaching career options and professional development workshops for teaching track faculty



## Early Career Mentoring Workshops

Provide insight into building collaborations, negotiating, effective teaching, and how to set yourself up for success

**Deadline: Mid-Sept**



## Virtual Roundtables

Opportunities to convene and connect on topics of interest to computing research industry partners



# ENRICHMENT PROGRAMS

CRA offers a variety of development opportunities for researchers of all career stages



## Mid-Career Mentoring Workshops

Learn skills on how to prepare for a more senior position, be an effective leader, build collaborations, and start new research initiatives

## Join CRA-I

Nominate yourself or a colleague to work to increase interaction between industry partners and other organizations involved in computing research

## Visioning Workshops

Articulate new research visions, galvanize community interest in those visions, and mobilize support for those visions

## Congressional Visit Day

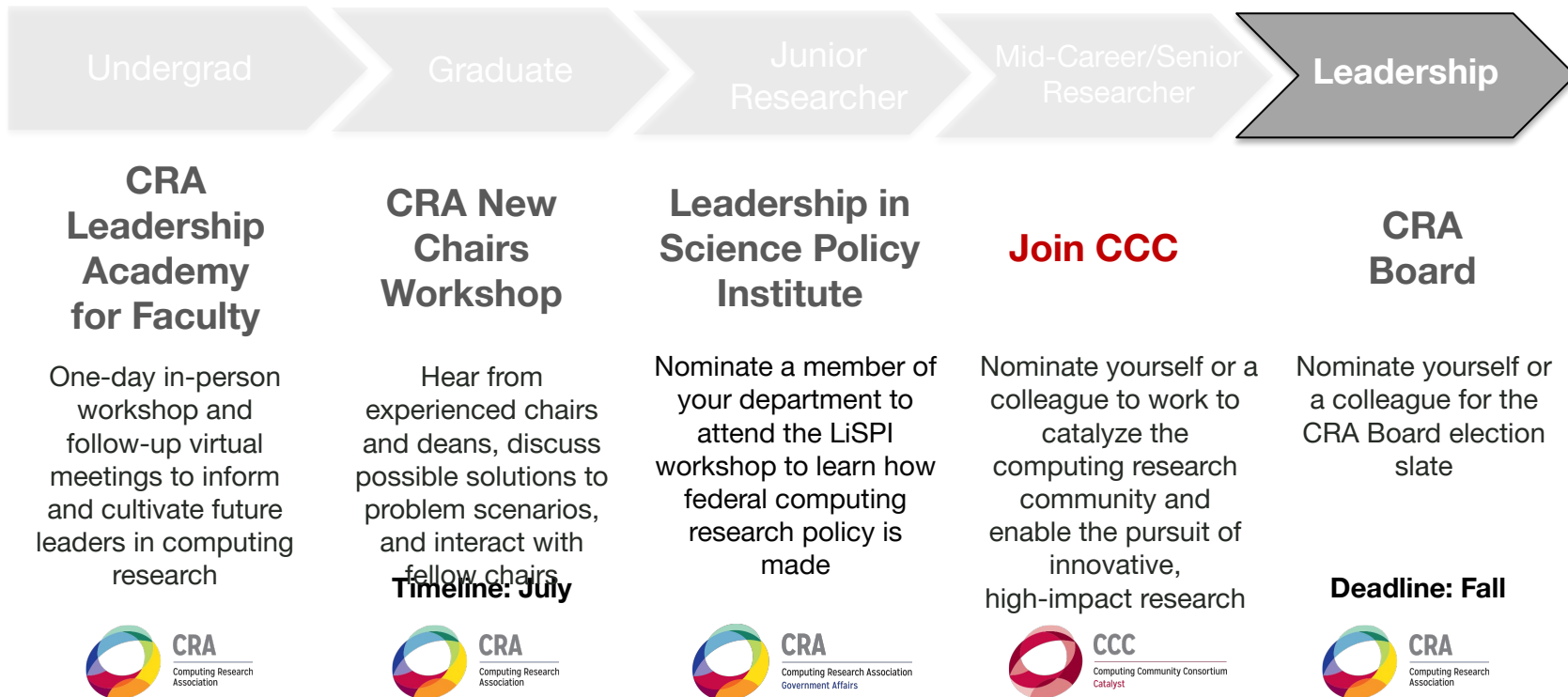
Receive training and meet with members of Congress to help make the case for federal support of computing research

**Deadline: Mid-Sept**



# ENRICHMENT PROGRAMS

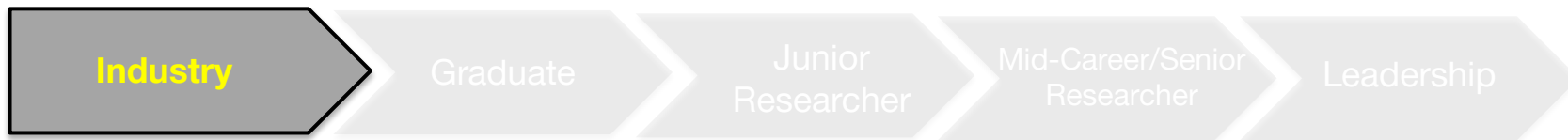
CRA offers a variety of development opportunities for researchers of all career stages



# ENRICHMENT PROGRAMS



CRA offers a variety of development opportunities for researchers of all career stages



## CSGrad4US Fellowship Program

The CSGrad4US Mentoring Program supports and mentors recipients of the NSF CSGrad4US Graduate Fellowship returning to graduate school for a PhD in computing

<https://cra.org/csgrad4us/>

# DATA AND INSIGHTS



## CRA Taulbee Survey

- The principal source of information on the enrollment, production, and employment of PhDs in several computing fields
- Survey report published annually in May
- Salary information shared in January for those who complete the survey



## BPCnet.org

- A clearinghouse for the community to learn about and engage with content related to broadening participation in computing (BPC)

## The Data Buddies Project

- Collects data to provide useful insights into student attrition and retention, matriculation into graduate school and research careers, and broadening participation

## Evaluation Services

- Evaluate your intervention programs, including BPC related programs, REU sites and supplements

# JOB ADS AND FACULTY RECRUITING TOOLS

*Did you know?*

## CRA Job Announcements

- Post an ad for your open roles for computing faculty and/or computing researchers
- More than 800 positions posted by nearly 400 universities and companies in 2022

[cra.org/ads](https://cra.org/ads)



CRA  
Member  
Discount

## CRA PhD Database

- Candidates can upload resumes, research and teaching statements, job objectives, videos, etc.
- Recruiting officers with access can search and contact candidates

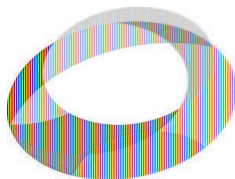
[cra.org/cv-database](https://cra.org/cv-database)



# IMPACTFUL SERVICE OPPORTUNITIES



Help build consensus around a united vision of inclusive undergraduate computing education



CRA  
Computing  
Association



- AccessComputing
- CAHSI
- CIC
- CRA-WP
- ECEP
- IAAMCS
- LEAP
- NCWIT
- STARS

# AWARDS PROGRAMS



## A. Nico Haberman Award

Distinguished  
Service Award

Outstanding  
Undergraduate  
Researcher Award

Service to CRA  
Award



**CRA-E**  
**Undergraduate**  
**Research Faculty**  
**Mentoring Award**



**CRA-WP Anita  
Borg Early Career  
Award**

**CRA-WP Skip Ellis  
Early Career  
Award**

# FOLLOW US



Subscribe to CRA's Blog

Become a fan of CRA's **Facebook** page

Follow CRA on Instagram **@computingresearch**

Subscribe to CRA's **YouTube** Channel

Join the CRA **LinkedIn Group**

Join a specific CRA Committee's Blog



## CRA Download

# Closing remarks

# THANK YOU, CRA STAFF!

**Lauren Lashlee - Program Associate**  
**Alejandra Guzman - Senior Program Associate**  
**Daniela Cardenas - Senior Program Associate**  
**Eniola Idowu - Research Associate**  
**Toyamim Rahman - Program Associate**  
**Helen Wright - Program Manager**  
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**Not on-site this time but equally appreciated:**

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# ANOTHER WORKSHOP OF INTEREST

- **CRA Early Career Mentoring Workshops**

- February 20-21, 2024 (Teaching)
- February 22-23, 2024 (Research - two tracks)
  - Academic (CRA's traditional CMW)
  - Industry/Labs (new track)
- Opportunity to meet NSF program directors
- **Application due date: Dec 11th**



<https://cra.org/crn/2023/10/cra-update-newly-expanded-cra-career-mentoring-workshops-now-accepting-applications/>

# CRA-WP EARLY CAREER AWARDS

- **Anita Borg Early Career Award (BECA)**

- Given to a woman in computer science and/or engineering who has made significant research contributions in computer science and/or engineering and has also contributed to the profession, especially in outreach to women.

- **Skip Ellis Early Career Award (SEECA)**

- Given to a person who identifies as a member of a group underrepresented in computing (African-American, Latinx, Native American/First Peoples, and/or People with Disabilities), who has made significant research contributions in computer science and/or engineering and has also contributed to the profession, especially in outreach to underrepresented populations

- **Nominations process will open on November 15**

<https://cra.org/cra-wp/scholarships-and-awards/awards/cra-wp-early-career-awards/>





# CRA (LATER CAREER) AWARDS

- **CRA Distinguished Service Award**

- CRA makes this award, usually annually, to a person or organization that has made an outstanding service contribution to the computing research community.

- **CRA A. Nico Habermann Award**

- CRA makes this award, usually annually, to a person who has made outstanding contributions aimed at increasing the numbers and/or successes of groups who have been minoritized in the computing research community.

- **Nominations due January 26**

<https://cra.org/about/awards/>

# **Thank You for Attending!**

*Friendly Reminder:  
What is said at CRA-WP CMW ...  
... stays at CRA-WP CMW*