![CRA-W Computing Research Association Women logo]

Research Careers: Options and How To Get There

What are some options?

Position	Where
Professor • Conduct research; lead a research group. • Advise/mentor students. • Teach. • Obtain research funding. • Write papers, give talks.	Research university Master's-granting university Undergraduate college * All require a mix of research and teaching with different focus
Researcher • Research, design, and propose new algorithms. • Develop (with others) working prototypes to showcase advantages and path to production. • Prove new theorems. • Team up with experts in other areas to solve multidisciplinary problems.	Industry lab Government lab University lab
Advanced product developer • Develop new technologies or software for specific needs. • Conduct user interface / user experience design and analysis.	Industry Government
Data Scientist/Analyst • Perform data analysis. • Design algorithms and software. • Propose data-supported strategies for public policy, science, business, etc.	Industry Government Non-profits
Principle Scientist/Manager/Dean • Advance to upper levels in hierarchy. • Provide direction for research, academia. • Represent institution/group to outside constituencies.	Industry Government Universities and other non-profits
Entrepreneur	Start a company based on your research

See http://www.computerscienceonline.org/careers/

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How can you prepare yourself for a research career?

As an undergrad student:
- Get a solid course foundation.
- Get research experience – apply for REUs, do research at your own college/university.
- Apply to graduate school, especially to Ph.D. programs.

As a grad student:
- Master the basics. Then become an expert in an area that really excites you.
- Identify novel projects and complete them.
- Write papers. Give presentations.
- Contribute to open source software.
- Do an internship in a research lab outside of your university.
- Do a software engineering internship if working on research involving software development/as preparation for industrial research lab positions.
- Get teaching experience, if interested in future teaching positions.
- Contribute to writing a grant.
- Get to know faculty who will be great mentors and advocates for you.
- Network. Establish an online presence.
- Consider doing a post doc.
- **Apply to attend CRA-W Grad Cohort!**

Applying and Interviewing

	Academic/Faculty	Industry/Gov't/Academic Lab
Where to find jobs	CRA: http://cra.org/ads/ ACM: http://jobs.acm.org/	Company/organization websites. Postings at research conferences or on research listserves. ACM: http://jobs.acm.org/
What to submit	Cover letter, CV, letters of reference, research/teaching/diversity statements.	Cover letter, CV, references.
What to expect in the interview	Initial phone interview 1-2 day onsite interview: meet faculty, students, dean/provost; give a research talk; maybe teach a class.	Initial phone interview 1-2 day onsite interview: meet lab members and managers; give a research talk.

Additional Resources

CRA-W Grad Cohort
http://cra.org/cra-w/grad-cohort-workshop/

Short videos on CS research careers:
http://cra.org/crae/activities/videos-computing-research

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