

# SUMMER INTERNSHIPS

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# **IMPORTANCE OF AN INDUSTRY INTERNSHIP**

# Are you wondering if you should do an internship?

1. Corporate Housing(Really good) and nice shuttle to campus daily.
2. Nice Salary(\$\$). Yeah VMware is the second highest paying company for interns according to some tech blogs(You can correct me if I am wrong).
3. Smart people to work with and definitely you are surrounded by intelligent people.
4. Your intern project will be used in production as one of my modules is already being used. :)
5. Really beautiful campus in Palo Alto.
6. Fully Stocked kitchen, Bagels on wednesday / thursday
7. Beer bashes once in 2 weeks. usually on fridays
8. Lot of intern events. You can get good swag.
9. Movie nights. Oh Forgot to mention the San Francisco trip :)

quora.com



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# Why should I do an internship?

Helps you Identify a thesis topic, Ground your research, Verify assumptions

- Access to real world data sets and customer information
- Build something that real users will benefit from
- Gain an external thesis committee member who will provide real-world input
- Write joint research papers
- Increase research breadth

Helps you build collaborations and your network

- Whether you ultimately work in academia or industry: future jobs, sabbaticals, funding
- Industry reference letters
- Meet graduate students from other Universities

Helps you evaluate what you really enjoy doing by experiencing life in industry

- teaching **vs** research (pure or applied) **vs** developing products
- well defined **vs** loosely defined projects
- work in large teams **vs** small teams **vs** alone (with your grad students)



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# Where should I do an internship?

- Companies where you might want to work at after you graduate
  - Startups vs Established
  - Small vs Large
- Companies that have expertise in your topic of interest
  - Experience on a specific platform
  - Knowledge about specific domains or operational issues
- Companies that have a proven record of successful internships
- At a nice location, perhaps a new country –it is summer after all!



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# When should I do an internship?

- Anytime!
- Preferred
  - When you feel you can take the most advantage of it
- Early in your grad career
  - Help drive your thesis topic
  - Get diversity in your research training
- Later in your grad career
  - Leverage networking for future job opportunities
  - More to contribute to the project
  - Can get final bits of data to finish your thesis
  - Committee members!



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# **HOW TO GET AN INTERNSHIP AND INTERVIEWING TIPS**

# How Do You Find The Right Company/Team?

- **Do your Homework!!**
  - Who is publishing at your favorite conferences?
  - Which names come up a lot?
  - Where have your friends / labmates interned?
  - What positive stories have you heard?
  - Is there a place you've always wanted to work at?
- **Ask your Advisor**
  - Leverage his/her personal connections
  - Leverage his/her existing financial contacts
- **And Later: Gut check with the Team**
  - Who will be your mentor? Do you click with them?
  - Does the work seem interesting and relevant to your research?



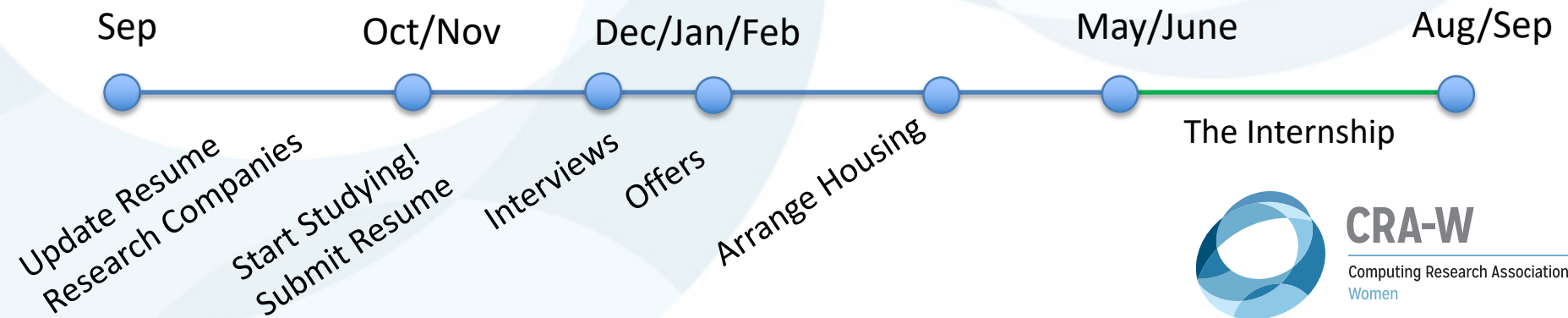
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# What Is The Process / Timeline?

- Varies by company: do your homework!
  - Facebook and Google start the process **in October** for the following summer!! All headcount is filled by **February**!
  - Others may interview January - April
- Resume and LinkedIn are super important. Update them!
- Pro Tip: **Do not apply online**. Have your advisor reach out to teams directly with your resume.
- **Recruiters** will likely shepherd the process afterward, but may be dedicated to a team, so they have a vested interest in landing you on that team.



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# Interviews?! Eeek!

- Generally 1-2 phone interviews:
- Do your homework! What does the team do? Who is the interviewer?
- **Research interview** – They'll leverage your resume, LinkedIn
  - Expect to be asked about courses, projects, publications
  - Prepare notes about projects you want to talk about
- **Coding interview** – Be sure to prepare!! There's a Udacity course!
  - Often use coderpad
  - Lots of resources online with examples of questions and answers
  - Ask clarifying questions. Think out loud.
- Be sure to get **YOUR** questions answered!!
  - Ask about the team charter, seniority/composition, internship philosophy, publication restrictions, collaborations with research groups, examples of successful interviews
  - (Don't ask about compensation or perks during the technical interview)



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# **HOW TO MAKE THE MOST FROM AN INTERNSHIP**

# Prior to the Internship

- Try to determine the general direction of what you are going to work on
  - Meet with your mentor prior to the start of the internship
- Read research papers relevant to the topic
  - Start putting together the related work
- Brush up on any skills that you may require
  - What is the preferred coding environment?
  - Statistical tools?
- Create a set of goals for yourself
  - Look up what prior interns in the group has accomplished
  - Look up what other people in the group work on
  - Networking! Make a list of people that you would like to meet
- Connect with other interns
  - Housing, transport, general bonding 😊



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# Beginning of the Internship

- Make sure you have access to all resources and sign up for the required training!
- Groups often have an intern handbook, read it!
- Spend time brainstorming the project direction and details
  - Establish the research questions and identify ways to address them
  - Identify collaborators
- Try out a small project to get yourself acquainted with the code base and setup
- Establish modes and frequency of communication with your mentor(s)
  - Set up shared documents
- Create a notebook for yourself – you will forget stuff!
- Set a (tentative) timeline



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# Middle of the Internship

- Revisit and revise your timeline regularly
- Check in code regularly
- Determine what the deliverables are going to be
- There will be roadblocks! Ask for help!



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# Towards the End of the Internship

- Most work is done towards the end
- Expect to have more moving parts as you approach the end of the internship
- Reevaluate where you are in terms of your initial goals
- Make sure you and your mentor have a plan for taking code/data with you
- If there is a paper to come out of it, work with your mentor on establishing a timeline
- If you intend to continue the collaboration after the internship ends, make sure you have a plan chalked out



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# After the Internship

- If you continue your collaboration, make sure you understand the constraints of the organization
  - E.G. Intellectual property issues
- Writing paper(s) – take the lead.
- Maintain contact with your mentor, they can be a great source of recommendation letters or a future job
- Connect with people from the company you interned at during conferences, visits etc
- Explore opportunities for future internships



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# General Tips

- An internship is not only intended for you to get research done, but also experience what industry research looks like
  - Try to follow the work patterns of your mentors/the FTEs
- Network!
  - Not only with the folks you work with, but anyone whose work interests you
  - Fellow interns are a great source of support
- Get to know the area! Participate in non-work activities regularly
  - Breaks are super important!
- Balance work and play



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