THE UNIVERSITY OF CHICAGO | Career Advancement

Making the Most of Summer 2020 | Computer Science

With this document, we hope to provide some ideas to structure an engaging and productive summer in order to keep building on your current technical skills and progress towards your goals in the technology field. We encourage you to evaluate your current goals and skills, explore the industry further, expand your skills and technical abilities, and most of all feel empowered to pursue the things that excite and motivate you. Below, you'll find guidance for conducting industry research and informational interviews, suggestions of independent projects to pursue to grow your technical skills, compilations of free resources to jump-start your summer projects, and more.

Develop Your Knowledge and Network --- (5-10 hrs/week)

Industry Research

> Are you interested in a specific role, such as data science, software engineering, UI/UX design, or product management? Are you interested in a large or small company? Does the start-up environment appeal to you? **Evaluating your own goals, priorities, and interests is an important step in having a productive summer. As you explore, the resources below will provide avenues for industry research to help refine your goals and identify companies of interest.**
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> Are there particular missions, like diversity & inclusion or the environment, that I have a strong passion for contributing to? **If mission driven technology is important to you, consider exploring Civic Technology, for which Chicago is an amazing hub, or finding an opportunity to volunteer with an organization whose mission aligns with yours.**

Whatever area of technology you are drawn to, taking time this summer to explore organizations in the field, their work, and what exciting projects might be coming down the pipeline is a fantastic way to prepare yourself for the future. Resources for exploring industry organizations include:

- Built in Chicago
- Polsky 10 newsletter
- Attending virtual conferences - several top technology conferences will be going virtual this summer and some have waived fees. These are typically exclusive in-person experiences, so take advantage and immerse yourself in the industry:
    - Microsoft Build 2020 - May 19-20, 2020
    - satRday Chicago – May 30, 2020
    - Apple WWDC20 - June 2020

Informational Interviewing

> Are you interested in better understanding a typical day-in-the-life in your chosen field? Are you curious about the backgrounds of those in the type of role you hope to obtain in the future? **If so, consider setting up informational interviews with UChicago alumni or others in your network this summer.**

Rather than being an interview for a specific job, an "informational interview" allows you to speak directly with a working professional in your field of interest, learning more about the day-to-day in their job and

gaining valuable insight into the field. Summer is an outstanding time to set up behavioral interviews with UChicago alumni or other contacts in your network. A few dos and don'ts:

Do	Don't
Utilize LinkedIn and UChicago Wisr to identify alumni and contacts in your network	Feel limited to those you already know - many working professionals are excited to speak with you about their work
Reach out and introduce yourself via LinkedIn, Wisr, or e-mail and share the point of connection you have	Send the same outreach to each contact without tailoring it
Ask plenty of questions that you're genuinely interested in knowing the answer to	Expect that the person you are "informational interviewing" will drive or lead the interaction

Potential questions for an informational interview include:

- How did you get started in this field?
- What recommendations do you have for the technical interview process?
- What does a day in your role look like?
- How do you collaborate with your colleagues in other roles?
- What does a strong candidate for a role on your team look like?

Hone Your Skills (10-15 hrs/week)

Do internship or full-time roles that interest me consistently ask for specific technical skills, such as R or Python for roles in data science? **If so, consider honing your skills or completing a project utilizing these programming languages. Independent projects are also a great way to build your resume!**

Summer is an outstanding time to hone your technical and soft skills as you continue to explore and grow. Independent projects and online coursework are an outstanding way to build your skills and contribute meaningful items to your resume for future recruiting. Below, we've included several suggestions for independent project ideas as well as free software development tools to get your project off the ground. Additionally, summer is a great time to prepare for technical recruiting.

Independent Project Ideas

The following suggestions for independent projects can each be adapted to your skill level and career goals.

- Build a website for an RSO, family business, or personal portfolio to hone your front-end and web development skills or highlight your design abilities.
- Utilize Python, R, or SQL and open source data sets, such as Data.gov to conduct an innovative data analysis.
- Contribute to an Open Source project to gain experience working in active codebases with other developers! If Open Source is new to you, First Timers Only and How to get started with Open Source are great resources.

- Create an online tutoring/educational platform to support virtual learning and provide support for working parents while work at home is in effect.
- Utilize Raspberry Pi or other microcontrollers to develop an interactive user experience or app; a few example projects can be found here.
- Develop a hardware engineering project focused on repurposing everyday electronic materials, such as game controllers, lightbulbs, or other mechanical parts
- Write a blog or develop a podcast on a topic within technology that interests you, developing your technical communication skills.

Technology and Software Engineering Virtual Resource Pack

Many outstanding companies offer online development and software engineering resources for free. Below, find a list of tools that can help launch and accelerate your summer project!

- GitHub Student Developer Pack: The GitHub Student Developer Pack provides students with free access to top developer and software tools in one place.
- Google Tech Dev Guide: Google provides curated guides on technical development and learning in a broad variety of fields and for a range of skill levels.
- Microsoft Azure for Students
- AWS Educate: no-cost, at-home learning opportunities and webinars offered by Amazon to build cloud computing skills
- Codeacademy: Wondering how to get started on a side-project? CodeAcademy is a resource to get you going.

> Does the role you are interested in require a specialized type of interview or specialized application materials, such as a "whiteboard" coding interview for a software engineering role or a portfolio for a design role?
> **Consider honing your interview skills or building out a portfolio website throughout the summer.**

Technical Interview Preparation

Technical interviews are a critical part of applying to roles such as data science or software engineering, particularly taking the accelerated technical recruiting timeline into account. To hone your technical interview skills this summer, we recommend:

- Reading books such as Cracking the Coding Interview and Elements of Programming Interviews to familiarize yourself with technical interview concepts (if you're interested in product management, check out Cracking the PM Interview)
- Online practice sites like LeetCode and HackerRank are great tools to hone your technical interview skills
- Partner with a peer to take turns acting as the interviewer and interviewee - technical communication is one of the most important parts of the technical interview, so make sure you can clearly explain all the parts of your code
- Keep in mind that many technical interviews may be conducted virtually in the future; take the time now to familiarize yourself with virtual tools for technical interviewing

Self-Care and Community Outreach (2-4 hrs/week)

Taking the time now to develop important life skills and a self-care routine will support your great accomplishments and help you have a positive, productive summer. Additionally, outreach to your community can be an important part of staying connected with those around you.

- Do you know how to cook? Offer to cook and deliver a meal to neighbors trying to manage childcare and work obligations at home.
- Develop an at-home exercise routine (this is also good self-care!)
- Take up or revisit a craft or hobby -- origami, bike repair, gardening, the instrument or art supplies you put down at the end of high school
- If you've never tracked your budget and expenses before, analyze your spending from the last year and develop a budget moving forward (see Nerdwallet tips)
- Self-care is critically important - read here for additional tips on managing anxiety and stress and here for advice on staying well while studying from home