

Computer Science and Software Engineering Advice for finding and Internship

For most students, find an internship is a scary process, mostly because it has a lot of unknowns. This document is to provide a step by step process for you to follow to help in the process in finding an internship.

Step 1: When: Determine When you want to have your internship

The best time for your internship is during your Junior Year Off semester. If this is not possible then you will have to arrange it during a Spring Semester, and work with Advising on shifting your schedule.

Summer Internship vs Co-op vs Part-Time job. Most companies will consider a Internship during the summer and a Co-op, or part-time job during the rest of the year. An internship is usually full time for 3 months. A co-op is similar, but HR has to call it something different. Part-time work is usually less than 40 hours (20-35), and that can still work, since Internship, Co-op, and Part-Time aren't expected to pay benefits.

Step 2: Where: Is all about Location, Location, Locations

This is an important aspect of your internship. You want to find a location where you can easily find a place to live. Usually your home town, where your parents or relatives live are generally the best option (free room and board).

The next where you want to live. There is a good chance that you would get hired by the company your internship with, so you want to consider where you want to live for the next 1-5 years.

Identify Candidate Companies or Organizations at these locations. Go to their websites. Look on LinkedIn for connections to these companies, friends & family. Find out how to apply.

Step 3: What: Software Engineering and Computer Science have a huge range of options, what do you want to do?

There are two things that you want to look at: First what domain knowledge do you want to go into and second what do you want to do with in the field of your profession.

Domain Knowledge: Computers are used everywhere. Every type of company needs programs. They need programs it help with their product workflow. From Music, Food, Science, Biology, Dance, Commerce, Gaming, Finance, and Business, all need computer programs to solve their needs. You need to determine what domain you want to work in? What interests you? What hobbies do you have? What are you excited about?

Field of Profession: There are many different areas with software that you can find work. Here are some ideas:

- **Front-End Applications:** Project can be developed on any platform: PC, Mac, Web, Mobile, GUI, etc.
- **Language:** You can research or create a new language or analysis old.
- **Requirements/Design:** This should be customer driven project.
- **Back-End applications:** Highly robust applications require back-end work including: Servers, hardware, architecture, distributed systems.
- **Database:** Uses of databases from flat files to DB management system, and DB modeling & structuring.
- **Security:** Information, Technology, and Programming security
- **AI, Machine Learning, Data Mining:** Data manipulation and presentation
- **Configuration/Document Management:** Control of software & project deliveries, evidence and data.
- **Testing:** Plan, data, scope, and types of testing from unit to regression to factory and delivery.
- **Quality Assurance:** Providing a valid, certified, expected product to a customer
- **Project Management:** Organizing people, resources, time, and budget.
- **Software Maintenance:** Do no harm, archeologist
- **Research & Development:** New ways of doing stuff, ideas, collaboration

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Step 4: Get your resume up to date

The first step in finding a job or internship is a resume. This is a summary of the professional experiences you have had. This includes part-time jobs, personal projects, education, and skills you have learned. Look at some job description to get the vocabulary of the field. Find out about the general terms. Ask people for copies of their resume for reference.

There are a few tips about resumes that should be on your resume:

- Contact information – Name, Email, Phone Number (minimum)
- Education – Your degree and when you plan on graduating, class projects, etc
- Skills – Programming Languages, Concepts, Principles
- Experience
 - You should try to get at least two jobs listed in this section. If you haven't got a part-time job, get one. The best is to have had one on campus and another one off of campus (during off semester, etc).
 - You can include your Mission in this section if applicable.
- Personal Projects
 - Having talked to several companies, they all say they like personal projects as they distinguish you from the rest of the students in your class.
 - Working with societies and outside of class projects, competitions, etc.

Perfect your resume:

- Your first step is to visit the Career Services. They will help you with developing your first formal draft of your resume.
- The next step is to ask a few professionals what they think of your resume. Start with your parents, parent's friends, people you know in the field, friends, professors.
- Finally go to job fair, and ask the vendor to look over your resume. Explain to them that your purpose is to improve your resume. They know what they are looking for and will find missing information instantly.

Things that will build your resume:

- Summer Jobs & Internships
- Senior Project (CS 499)
- Personal Projects – There is no completely finished program, start on a project and you have something to talk about. Come up with an idea, put some code down, and link it in to your resume.
- Societies
 - Association of Computer Machinery (ACM),
 - [Artificial Intelligence](#),
 - [Data Science](#),
 - Soc. Of Woman in Engineering, and
 - [IEEE](#)
- [Career Workshops](#)
- [Applied Learning Projects \(ALPS\)](#)
- [Research and Creative Works Conference](#)
- [Research and Business Development Center](#)
- **Collaborative tools:** [Alumni](#), [LinkedIn](#), [Handshake](#), [Portfolium](#)

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Step 5: Finding an internship

There are several different techniques with varying degrees of success.

Networking: You have already ask several people about looking at your resume. Ask if they are hiring, and what they are looking for. Look on **LinkedIn**. Visit BYU-Idaho's **HandShake**.

Job Fair: Visit with every booth. Every company is looking for a computer savvy individual. Get a list of all the companies at the fair. Identify the ones that interest you, and go talk to them.

- BYU-Idaho Job Fair – Oct, Feb
- BYU-Prove Job Fair – Sep,

Career Services:

- Resume & Networking Workshops
- List of Companies that go to job fair
- List of Companies that hire BYU-Idaho Students.

Service Missionaries: There are Service Missionaries that specialize in employment around the country.

Search Engines:

- <https://byui.joinhandshake.com/>
- Indeed.com
- LinkedIn
- Dice.com
- <https://stackoverflow.com/jobs>

Companies that hire BYU-Idaho Students in the past:

- Accendero Software
- Amazon
- AMET
- Apriva
- Arc American Inc.
- Avercast, LLC
- Balcones Resources
- City of Hope
- CompuCom
- CyberScout
- DavishTech
- DevSquad
- FamilySearch
- HOTELERA PALACE RESORTS, S.A. P.I. DE C.V
- Idaho National Laboratory (INL)
- Idaho State Police
- IQ Technology Solutions
- Justice Systems Inc
- Labstats
- LDS Business College
- LDS Church Riverton Office Building
- ManagerPlus Solutions
- Masonite International
- Melaleuca Inc.
- Mercury Inc.; Zoetis
- National Public Radio (NPR)
- NAVEX Global
- Oak Ridge Associated Universities
- One Represents One
- OptimumHQ
- Paradisus Cancún
- PGX Comics
- Research & Business Development Center
- ReviewLyft
- RigMinder
- Safe Streets USA
- TCN INC
- The Church of Jesus Christ of Latter Day Saints (ICS Department)
- United States Appraisals
- Utah Higher Education Assistance Authority

- USAA
- Walmart Corporate
- Wilson Diamonds

Step 6: Do some research about the Company you are applying for

Learn about the company. What is their product line? Who are their customers, suppliers, and users? What can you do to help them?

Step 7: Work on your cover letters

Yes, cover letters. A cover letter bridges the gap between your resume and the job descriptions. Depending on the field you are trying to find, your cover letter will be different. You need to demonstrate in writing how you would be a good fit for the company and how the company would be a good fit for you.

Step 8: Get some references

Most companies will ask for references. References can be from various people. The best are previous managers, professors, leaders, and co-workers.

You can use feedback, yearly appraisals, and letters of recommendation.

Step 9: Do some research

Find some online advice. Look up conferences. Find professionals in the field. What are some professional organizations? All of these will have resources and job boards.

Online Advice:

- Joel on Software