# student
## co-op guide

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presented by
## UW WiSTEM

## HI THERE! :)

This guide was created in hopes of providing students with guidance and relevant resources in preparing for a job search as part of the University of Waterloo's student co-op program.

This guide answers general and field specific questions about interview processes, best practices and common mistakes, as well as advice for resume content creation and design specifically for student internships.

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# general preparation

01

By now you've likely figured out that, due to the ongoing COVID-19 pandemic, all interviews will be virtual. For both students and companies, this is a huge shift in regular interviewing processes and standards. For some, it is very challenging to complete interviews online since the connection between the interviewee and interviewer is harder to build. Also the literal network connection sometimes is not the best! Here are a few tips to help you through this virtual interview season:

**1** Familiarize yourself with the platforms that will be used. Some common interviewing platforms include Zoom, Google hangouts / Google meets, Skype, Phone call, etc. Consider which browsers or applications would be best for you to use these tools.

**2** Test your connection, camera and microphone in advance if possible, to prevent any technical issues during your interview. Also consider closing unnecessary tabs to ensure your device has enough processing power to support your call.

**3** If it is a video call, ensure you are somewhere with enough light so that you and the interviewer can see each other clearly.

**4** During the interview, if there are any technical issues make sure to let the interviewer know! The situation can oftentimes be out of your control, and they will always understand so no need to hesitate.

**5** Be confident, collected and enthusiastic! All other rules of interviewing apply – this is your chance to shine and show off how amazing of an applicant you are!

# Sample Questions

**Q**

## TELL ME A LITTLE ABOUT YOURSELF

Interviewers generally ask this at the beginning of the interview to get to know you. Use this as an opportunity to highlight important and relevant aspects from your background.

**A**

**Q**

## HOW WOULD YOU DESCRIBE YOURSELF?

This question is asked to gain insight into how your qualities and skills may align with the characteristics the interviewer thinks are needed to succeed in the role. Elaborate on specific situations that demonstrate how your best skills helped to drive success.

**A**

**Q**

## WHERE DO YOU SEE YOURSELF IN 5 YEARS TIME?

Interviewers use this question to determine whether your future ambitions and goals align with the role and/or company's trajectory. This does not have to be specific; providing a general idea of types of roles, fields, and skills you are interested in is a great way to approach this.

**A**

**Q**

## WHAT IS YOUR GREATEST STRENGTH?

**A**

This may refer to technical and/or soft (aka transferrable) skills. Share qualities of yourself that will benefit the role you are interviewing for.

**Q**

## WHAT IS YOUR GREATEST WEAKNESS?

**A**

It may feel awkward to describe weaknesses when you are expected to highlight your best attributes... however, this is a chance to show self-reflection and a drive to continuously improve (everyone has weaknesses!). Remember to discuss what measures you are taking to become better at this skill.

**Q**

## DO YOU HAVE ANY QUESTIONS?

**A**

Yes! This is your opportunity to further demonstrate your genuine interest in the position and show the interviewer that you have done research on the company or company projects.

In general, keep in mind that you are trying to convince the interviewer that you are a great fit for the position. Try to spin answers in a positive way and refer to specific past experiences whenever possible.

# Situational Questions

Situational questions often begin with "Tell me about a time when..." or "What would you do in a situation where...". A great way to break down each experience in an effective and structured manner is using the STAR method:

**SITUATION**

Provide context and relevant details about the specific situation in which you were tasked with. Avoid including irrelevant or vague descriptions as this will only become confusing. This situation could be a previous co-op position, volunteer experience, or any relevant situation.

**TASK**

Discuss what you were trying to accomplish. What were your responsibilities or the role you were delegated to do?

**ACTION**

The most important part is the action of how you achieved the goal you set out or overcame a particular obstacle. Ensure you are speaking of your personal contributions by using "I…" and not "We…" in describing actions.

**RESULT**

Talk about the positive outcome of your efforts. Be as specific as possible, ideally including quantitative results. In results, you should describe what you achieved and what you learned. Alternatively, you can also talk about what you would do differently if given the opportunity or if you felt like the result did not align with what you were trying to accomplish.

## EXAMPLES

Tell me about a time when you had to overcome a conflict with a co-worker.

Tell me about a time when you failed and how you dealt with this.

What would you do in a situation where you were asked to perform a task you had never done before?

# Common Mistakes

**1**

## GRAMMATICAL ERRORS

Small mistakes can significantly impact your chances of getting the position. Make sure that you check for grammatical errors in your resume by using grammar and punctuation checkers like Grammarly, ProWritingAid, Ginger.

Look out for hyphen use, verb tense and more when writing your resume!

**2**

## WRITING TOO MUCH

Employers will take 6-8 seconds to skim through your resume. Write in a concise, consistent, and easy-to-read style so they'll be able to grasp an idea of your accomplishments. Try your best to use bullets or short paragraphs when describing your responsibilities and other experiences.

Whitespace is ENCOURAGED when writing resumes - don't use every bit of space on the page to fit extra details of your accomplishments. Remember, quality over quantity!

**3**

### LACK OF ACTION WORDS

Action verbs are needed to emphasize your information and for employers to be easily convinced of your accomplishments (check out our list of additional resources for more action verbs).

**4**

### NOT INCLUDING SPECIFICS / METRICS

You want to write about your accomplishments and how you helped the specified environment. Don't be vague and inconcise when describing your role, include measurable evidence to represent your work/progress on something (e.g. increased sales by 10% in the span of 2 months)

For more detailed examples on how to be more specific and informative, check out Monster's guide on "Highlighting Duties Instead of Accomplishments"

**3**

### USING THE SAME RESUME FOR DIFFERENT ROLES

Even though it's convenient to use the same resume for different occupations, you should make different resumes that are adjusted to the specific position that you are applying to. Make sure to include keywords that the employer has included in the job post to allow the ATS to match your resume with the job description.

# Resources

## ACTION VERBS

Indeed: 139 Action Verbs to Make Your Resume Stand Out

The Muse: 185 Powerful Action Verbs That Will Make Your Resume Awesome

## KEYWORDS

The Balance Careers: Tips for Using Resume Keywords

## OBJECTIVE STATEMENTS

The Balance Careers: Why a Resume Shouldn't Have an Objective

The Muse: The Only Time It's OK to Use an Objective Statement on Your Resume

## RESUME & COVER LETTER TIPS

Government of Ontario: Top Resume and Cover Letter Tips

Government of Ontario: Writing a Cover Letter and Resume: Tips, Tools and Resources

# *science*
# *roles*

Research

Interview

Resources

Different STEM roles often have very different hiring processes. From interview questions to practical evaluations, it's important to know what to expect depending on the roles you apply to!

Tne next few pages consists of advice and resources on the most common roles in the fields of Science!

# Interview

The interview process will vary (like other STEM roles) depending on the employer and specific field of research. Roles in scientific research will almost always include a behavioural question aspect and may have a technical/ theory-based aspect as well. Although having previous experience in research or wet labs is definitely an asset, it is not everything a hiring manager is looking for! Highlighting any relevant experience or knowledge related to the particular field is just as important -- whether this is from past courses you have taken, volunteer experience, or research you have done on your own.

## BEHAVIOURAL-BASED QUESTIONS

In behavioural-based interview questions, the hiring manager is looking to see if you possess skills that would allow you to excel in a lab or research environment. This includes but is not limited to: analytical and critical thinking skills, attention to detail, communication, collaboration, problem solving, and time management.

Situational questions related to the job are usually included to show the interviewer how you would approach certain situations and demonstrate your thinking process.

## TECHNICAL-BASED QUESTIONS

Keep in mind a technical aspect may not be included in the interview process since this does vary.

In the technical aspect of an interview, the questions are intended to identify the extent of your knowledge in the specific field they are interviewing you for.

For example, a position as a researcher in a microbiology laboratory could ask you to explain the various types of staining methods or define a specific term.

# Resources

## MONSTER: SAMPLE RESUME FOR AN ENTRY-LEVEL RESEARCH SCIENTIST

Check out Monster's sample resume for an entry-level research scientist to get an idea of how to include research highlights and other important details when writing your resume for a research position

## SCIENCE MAG: HOW TO WRITE A WINNING RESUME

Provides more information on how to organize specific sections of your accomplishments and what / what not to include in your resume for lab or research based positions

# technology
## roles

As with the other STEM disciplines, the interviewing and application process for roles in the technology industry can differ drastically based on the discipline within tech that you are applying to!

This section will cover tips and tricks for roles in the areas of: Software Engineering, Product Management and Design, IT Support and Analyst roles. Valuable resources specific to each role are also mentioned in the following subsections.

Software engineering roles typically require both a technical and behavioural interview process. The behavioural section usually includes questions about past technical experience, personal projects, interest in the role and other general interview questions from earlier in this guide.

# Technical Interview

The technical component of software engineering interviews can vary in topic, length and difficulty. Different roles will have different sets of questions that are more likely to be asked (Frontend, Backend, Full-Stack, Mobile, Infrastructure, Data, etc.).

Generally, it is most important to understand problem solving logic, data structures and algorithms and language syntax.

This portion of the interview is usually an online, live coding challenge, completed with an interviewer. In order to effectively prepare, it is important to be familiar with which platforms may be used throughout the interview process which may help you figure out the best way to communicate your solution in the interview. Two popular virtual-coding platforms used to conduct technical interviews include CoderPad and Google Docs.

## PROGRAMMING LANGUAGE

It's usually your choice!

There aren't statistically significant differences between the success rate when interviews are conducted in different languages. If you are interested in learning more about choice of language and other factors in successful interviews read **"We analyzed thousands of coding interviews. Here's what we learned." by FreeCodeCamp**.

Always choose the language you are most comfortable and well-versed in rather than the language which the company uses. The skills employers are looking for are logic and problem solving, not how much syntax you can memorize!

## PLATFORM

Now that you have your language(s) of choice, you should look for platforms to practice your coding abilities.

An understanding of data structures and algorithms (DSA) is needed in most coding problems. Here is an extensive dictionary if you want to look up and review DSA concepts.

Below is a list of coding platforms with practice questions for you to practice on. Note that leetcode is the most popular and widely used platforms – many companies do pull their questions from these platforms, but actively solving problems on any of them will help you to be best prepared for your interviews :

**1**    Leetcode

**2**    HackerRank

**3**    DMOJ

*practice, practice and practice*

## SAMPLE QUESTIONS

**Q**

There are 9 coins, all except one are the same weight, the odd one is lighter than the rest. You must determine which is the odd one out using an old fashioned balance scale. You may use the scale only twice. Explain how you would do this.

This question is a logic question, not a coding question. These sorts of questions are also very popular to understand your problem solving process

Start by restating the given information. Process the problem and ask any follow up questions that you have. For example, "Just to clarify, once I use the scale twice I should know which coin is the odd coin – is that correct?".

**A**

Now, evaluate the option to weigh different sets of coins. What would an initial weighing of 2 and 2 give you? How about 4 and 4? How about 3 and 3? Remember to think out loud, show all of your work and make it clear that you are not tied down to only one solution!

You will soon realize that the solution is as follows:

First weighing: 3 coins on each side of scale. If these are both equal then you know the remaining 3 coins NOT on the scale contains the odd one. If the scale is uneven, then the lighter side contains the odd coin.

Second weighing: Now we have 3 coins remaining. Put 1 coin on each side. If both coins are equal the coin NOT on the scale is the odd one. If the scale is unbalanced, the lighter one is odd!

**Q** Try Leetcode questions such as the "Palindrome Number"!

This is an easy-level coding problem. Easy and Medium level coding problems are most commonly asked. The answer is also available on leetcode in the "Solution" tab. Don't just solve the problem – try talking out loud as you do it and justify your steps!

# Resources

### CS JOBS (STUDENT CREATED)

Extensive resource for jobs, preparation resources, resume / cover letter tips and other general articles

### CRACKING THE CODING INTERVIEW (GAYLE LAAKMANN)

There are also several books to help with computer science / software engineering focused roles. Cracking the Coding Interview covers the most common interviewing processes and advice interviewing with larger tech companies including Google, Microsoft and more!

# Interview

Product management roles also generally include a behavioural, product-focused component and/or a technical component and/or a design component. The interview process varies depending on the type of PM role (Technical Program Management, Product management, Project Management, etc.) as well as the company; it may be a behavioural and some combination of the three following components.

## PRODUCT COMPONENT

The product-focused component will usually ask why you are interested in the company / product, improvements you would make to the company's product(s), your favourite product and one improvement you would make to it and more which test your ability to analyze and evaluate "good" products from "bad" products. For more general questions visit this link: product management interview questions.

## TECHNICAL COMPONENT

If there is a technical component, it is usually very similar to the process detailed above for Software Engineering roles. Again, the difficulty and length of the question depends on the level of technical skill needed for the PM role. These technical problems are usually looking to evaluate a PM's general problem solving ability and familiarity with coding ability (if relevant to the role).

## DESIGN COMPONENT

The design component of a PM interview will usually be an open-ended question which seeks to evaluate your ability to consolidate large, ambiguous visions and goals into an organized vision and plan for bringing an idea to production. These questions are best understood through example problems.

**Q** Design a smart lock.

There is no one right answer! **A**

Immediately there are several questions you can ask yourself:

- Who is the smart lock for?
- What is defined as "smart" functionality for the lock?
- What is the primary use case for a smart lock?
- Why a smart lock vs. a regular lock?

All of these questions are for you to consider as you choose to design your smart lock. There are several ways to answer this question and, really, there is no right answer.

# Resources

## PRODUCT MANAGER INTERVIEW: THE PRODUCT DESIGN QUESTION (Kevin Lee)

Details an excellent process to follow for design questions while interviewing for a Product Management position

## 11 DESIGN INTERVIEW QUESTIONS AND HOW TO MASTER THEM (OLIVER LINDBERG)

More product design interview questions

# IT Support

IT Support is a broad term to refer to any assistance given with technology-related products and services. In a business setting however, the role of an IT technical support engineer is to primarily help monitor and maintain computer systems and networks across an organization. Technical support is not just about fixing problems, but optimising the usability and performance of each and every component within a system.

## COMMON INTERVIEW QUESTIONS

- What are the hardware components of a desktop computer/ laptop?
- What are the things to do when a customer calls up that his computer is slow?
- What challenges do you expect in this IT support job role?

## RESOURCES

- 30 Common IT Support Interview Questions and Answers (Chitra Reddy)
- 17 Must-Ask Tech Interview Questions (Robert Half)
- Top 25 Technical Support Interview Questions With Answers

# Analysts

The term analyst has many meanings, depending on the situation. However, in all cases, it is a person who analyzes and specializes in analysis. There are many types of analyst jobs available, including business, data, investment, systems, and market research analysts.

## COMMON INTERVIEW QUESTIONS

**business**

Describe your familiarity with SQL queries.

Describe how you typically approach a project.

**data**

Explain what "logistic regression" is.

List the best tools for data-analysis.

**research**

Talk about the differences between qualitative and quantitative marketing research.

What product is not marketed well? What would you do to improve their strategy?

## RESOURCES

Top 8 Business Analyst Interview Questions and Answers (Indeed)

Top 30 Data Analyst Interview Questions & Answers (CareerGuru)

Top 65 Data Analyst Interview Questions You Must Prepare In 2020 (Sahiti Kappagantula)

# business roles

04

Interviews
Useful Tools

# Interview Tips

**1** ## RESEARCH

Every team has a different culture so research!!
You should know why you want to work at the
company and why you would be a great fit.

**2** ## MENTION UNIQUE PROJECTS OR SKILLS

**3** ## KNOW YOUR INTERESTS

Tell your employers which field you are mostly
interested in (eg. business and technology).

## 4   BE CONFIDENT

Be proud of what you've accomplished!

## 5   BE PRECISE AND CLEAR ABOUT YOUR GOALS

## 6   NETWORK

A lot of large corporations really care about networking and they will track you down if you are someone they think will fit the team. Therefore, start networking now or cold-calling them on LinkedIn.

Don't be shy!

## POWER BI

Power BI has built in support for popular cloud services, such as Salesforce.com and QuickBooks Online. Connect to data in Excel spreadsheets, your favorite online services, and databases inside your organization. Power BI collects your data in one place, and you can even access it on the go with native Power BI Mobile apps so stop hunting for your data, and start analyzing.

## MYSQL

MySQL is a popular database platform for businesses because it is extremely easy to use. You hear "it's easy to work with" a lot in relation to computer languages, but MySQL truly is simple. Aa a BA or BSA, MySQL is such a powerful tool you should put on your resume. We are not coders so we are focusing on the data side and business analysis

## EXCEL MACROS

Apart from having a basic understanding of Excel shortcuts, you can also try to learn how to do Excel Macro. Excel macros save you time and headaches by automating common, repetitive tasks, and you don't have to be a programmer or know Visual Basic Applications (VBA) to write one.

call to action

05

We hope this guide provided you with useful and relevant resources, advice and guidance as you enter your job search as a student in the STEM fields. Feel free to visit www.uwwistem.com for similar resources and events that will help in your career development.

Continue to actively seek role models, mentors and peers who can provide you with the support and guidance you need to achieve your personal and career-related goals!

If you have anything you would like to add to add to this guide click here.
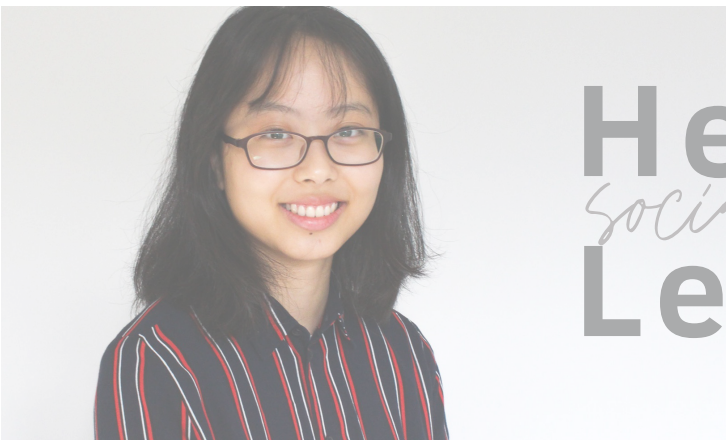
## GOOD LUCK! :)

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