SKILLS IDENTIFICATION & ARTICULATION

Engineering Undergraduate Students

May 13, 2025

Kierra Young + Molly Fernhill

Career Advisors
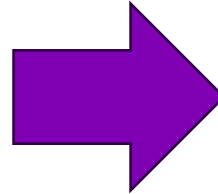
UNIVERSITY OF WATERLOO | **Centre for Career Development**

Go from this ......

to this!

UNIVERSITY OF
WATERLOO | **Centre for Career Development**

YOUR FACILITATORS

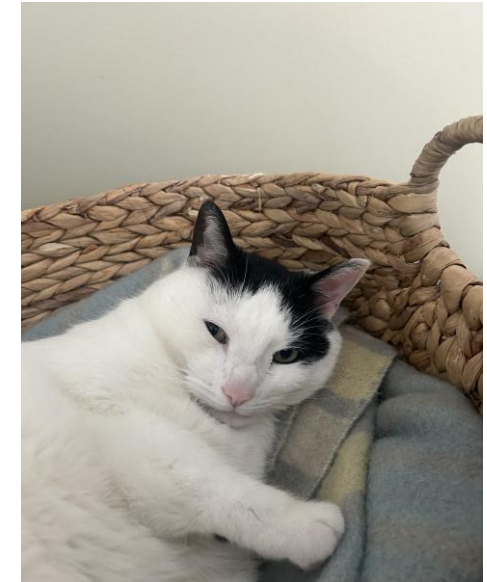## Molly Fernhill, she/her
Career Advisor

Addie, full time good girl

Kierra Young, she/her
Career Advisor

Archie, full time good boy

Book a 1:1 Career Development Appointment with us!

UNIVERSITY OF WATERLOO | Centre for Career Development

WHOSE LAND ARE WE ON?

The University of Waterloo acknowledges that much of our work takes place on the traditional territory of the Neutral, Anishinaabeg and Haudenosaunee peoples. Our main campus is situated on the Haldimand Tract, the land granted to the Six Nations that includes six miles on each side of the Grand River. Our active work toward reconciliation takes place across our campuses through research, learning, teaching, and community building, and is co-ordinated within the Office of Indigenous Relations.

Curious about the land that *you* are on?

Visit https://native-land.ca/

Celebrate National Indigenous Peoples Day!

UNIVERSITY OF
WATERLOO | Centre for Career Development

What to Expect

- Principles of curiosity, care and respect

- Participate in a way that works for you: everything is optional

- Take what works for you, leave what doesn't

- Ask questions throughout

- Download the handout in the chat!

UNIVERSITY OF **WATERLOO** | Centre for Career Development

LEARNING OUTCOMES

1. Identify your employment skills

2. Develop a body of evidence of your employment skills

3. Be able to analyze job descriptions to identify and articulate skills employers are seeking

4. Articulate convincing evidence of your employment skills in an interview response format

UNIVERSITY OF WATERLOO | Centre for Career Development

WHAT ARE SKILLS?

- A skill is a **demonstrated** ability to do something well
  - Learned through academics, on the job learning, self-study, hobbies, etc.
- 2 Categories: **Technical** skills vs. **transferable** skills
  - **Technical:** Skills learned for a specific purpose (Excel, lab instruments, etc.)
  - **Transferable:** Skills used in multiple domains in your life (communication, time management, leadership)
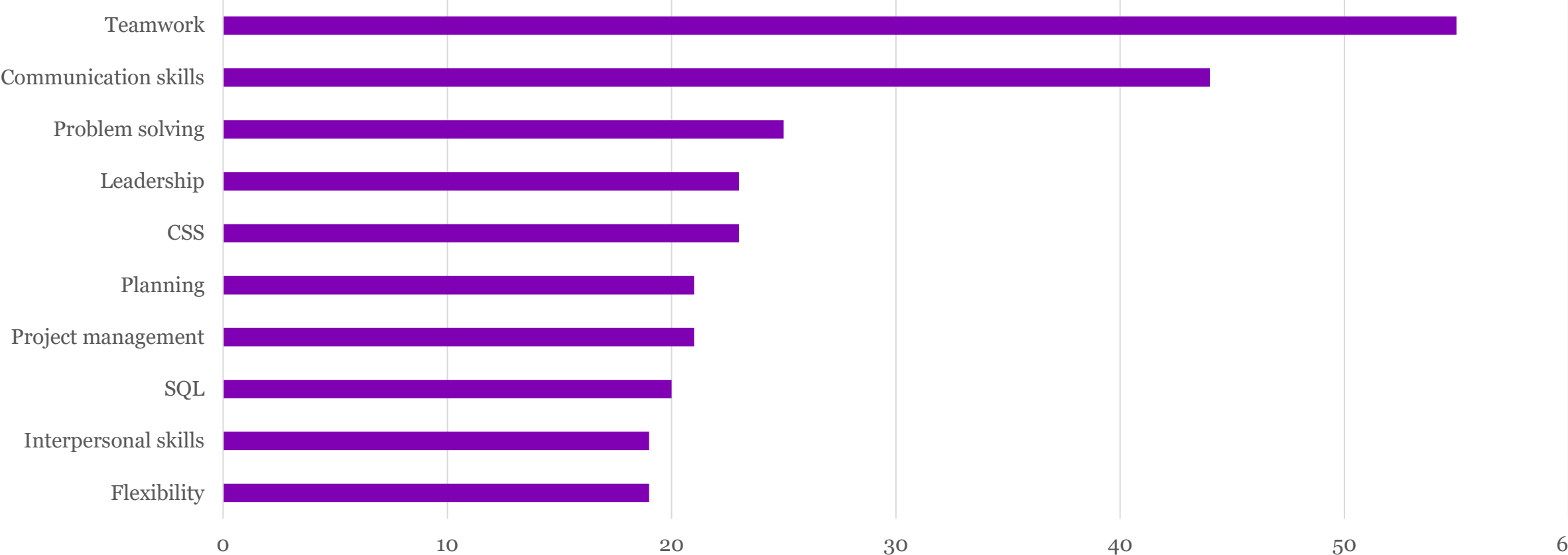
What is one technical or transferrable skill you developed over the past term?

UNIVERSITY OF WATERLOO | Centre for Career Development

WHAT ARE THE SKILLS EMPLOYERS ARE LOOKING FOR?

WHAT ARE EMPLOYERS LOOKING FOR?

Top 10 work requirements for professional occupations in natural and applied sciences

UNIVERSITY OF WATERLOO | Centre for Career Development

JOB DESCRIPTION ANALYSIS

Employer: UW Faculty of Engineering
Job Title: Engineering Ideas Clinic
Research Assistant
Work Location: Waterloo

The Engineering Ideas Clinic aims to bring open-ended, hands-on activities to the classroom to encourage student self-learning and exploration. In this role, you will propose, design, build, test and develop new Engineering Ideas Clinic activities in collaboration with professors from various programs. Duties may include research, planning, testing, and writing of teaching materials.

Required Skills

- Excellent time management and ability to work independently

- Excellent communication (oral and written) skills

- Experience with SQL and AutoCAD is an asset

- Experience with programming languages such as Java, C#, C++, C, or Matlab is an asset

JOB DESCRIPTION ANALYSIS

Employer: UW Faculty of Engineering ...ng open-
Job Title: Engineering Ideas Clinic ...m to
Research Assistant ...ed exploration. In
Work Location ...build, test and
develop new Engineering Ideas Clinic activities in
collaboration with professors from various programs.
...es may include research, planning, testing, and
...ng of teaching materials.

Communication skills

Teamwork/Collaboration

Planning

Required Skills

- Excellent time management and ...ity to work independently

- Excellent communication (oral and written) skills

- Experience with SolidWorks and AutoCAD is an asset

- Ex... +, C, or Matlab is an asset

SQL

Problem Solving

.

THE SKILL ASSESSMENT CHART

Skills Employer Wants from the Job Posting	Evidence I have it (Consider club experience, research papers, lab reports, essays)
Communication Skills	Volunteer at March Break Open House greeting parents and high school students
Teamwork / Collaboration	Group Project in WE Accelerate Azure and Artificial Intelligence Stream
Planning	Created presentation for University fair
SQL	Created personal website using SQL to show different project works
Problem Solving Skills	Organized weekly meetings accommodating everyone's schedule for the photography club

SKILLS ASSESSMENT CHART

Top 10 Skills Employers Are Looking For	Skills Employer Wants from the Job Posting	Evidence I have it
Teamwork	☑	Group project in 1A Engineering course
Communication	☑	Volunteer at March Break Open House greeting parents and high school students
Problem Solving		
Leadership		
CSS		
Planning	☑	Created presentation for university fair
Project management		
SQL	☑	Created personal website using SQL to show different project works
Interpersonal Skills		
Flexibility		

GOING FROM IDENTIFICATION TO ARTICULATION

How can you prove that you have these skills?

SECRET TO INTERVIEWS

Practice! Practice! Practice!

TALKING ABOUT SKILLS: BEHAVIOURAL-BASED QUESTIONS

Philosophy: What you've done in the past will predict your future behaviours

Typically, will begin with:

- **Tell me about a time when** you set a goal for yourself. How did you go about ensuring that you would meet your objective?

- **Give me an example of a time** you faced a conflict while working on a team. How did you handle the situation?

- **Describe a situation in which** you were under a lot of pressure. What was going on, and how did you get through it?

UNIVERSITY OF
WATERLOO | Centre for Career Development

★ THE STAR APPROACH

Situation	Background and context
Task	What you needed to do
Action	What you did and how you did it
Result	The outcome of your actions

UNIVERSITY OF **WATERLOO** | Centre for Career Development

★ THE STAR APPROACH: Situation

- Provide background and context

- **Example Question: Tell me about a time you had to work under pressure.**

- Who, what, where, when...

- Be brief (you are just providing the context here)

- Example:

  - Previously, I was a WE Accelerate Azure team member. My team had to create an AI-driven solution for a client within five weeks. Midway, we hit unexpected technical issues and miscommunication with the client, which created a lot of pressure.

UNIVERSITY OF WATERLOO | Centre for Career Development

★ THE STAR APPROACH: Task

- Describe what you needed to do

- What goals did you need to reach?

- Include challenges and expectations

- Example:

  - As a team, we needed to build the AI model, integrating it with Azure services, and maintain clear communication with the client to keep the project on track.

UNIVERSITY OF
WATERLOO | **Centre for Career Development**

★ THE STAR APPROACH: Action

▪ Explain what you actually did and how you did it

• Include tools you used

• Focus on relevant talents (skills/attributes/characteristics/competencies)

• Should be the longest part of your response

• Example:
  • I took the initiative to communicate with the client to clarify what they were expecting from us and determine the timeline that it could be completed by. After that, I created regular team meetings over Microsoft Teams to ensure we got the work done on time. I also shared our meeting notes and action items after every meeting so everyone was on the same page.

UNIVERSITY OF WATERLOO | Centre for Career Development

★ THE STAR APPROACH: Result

- Describe the outcome of your actions

- What did you accomplish?

- Did you receive any positive feedback or recognition?

- What did you learn?

- Example:

  - We delivered a working AI solution on time, received great feedback from the client, and I earned both the Azure Fundamentals and AI Fundamentals certifications.

UNIVERSITY OF
WATERLOO | Centre for Career Development

★ THE STAR APPROACH

Q: Describe a situation in which you were under a lot of pressure. What was going on, and how did you get through it?

Situation	Previously, I was a WE Accelerate Azure team member. My team had to create an AI-driven solution for a client within three weeks. Midway, we hit unexpected technical issues and miscommunication with the client, which created a lot of pressure.
Task	Build the AI model, integrating it with Azure services, and maintain clear **communication** with the client to keep the project on track.
Action	I took the initiative to communicate with the client to clarify what they were expecting from us and determine the timeline that it could be completed by. After that, I created regular team meetings to ensure we got the work done on time and shared our meeting notes and action items after every meeting to ensure everyone was on the same page.
Result	We delivered a working AI solution on time, received great feedback from the client, and I earned both the Azure Fundamentals and AI Fundamentals certifications.

★ THE STAR APPROACH

Q: Give me an example of a time you took initiative.

STAR Activity – Part A

Instructions: You are the interviewer! You just asked a candidate the following question: "Give me an example of a time you took initiative".

As you listen to the facilitator's response, write down the **Situation, Task, Action and Result** on your handout.
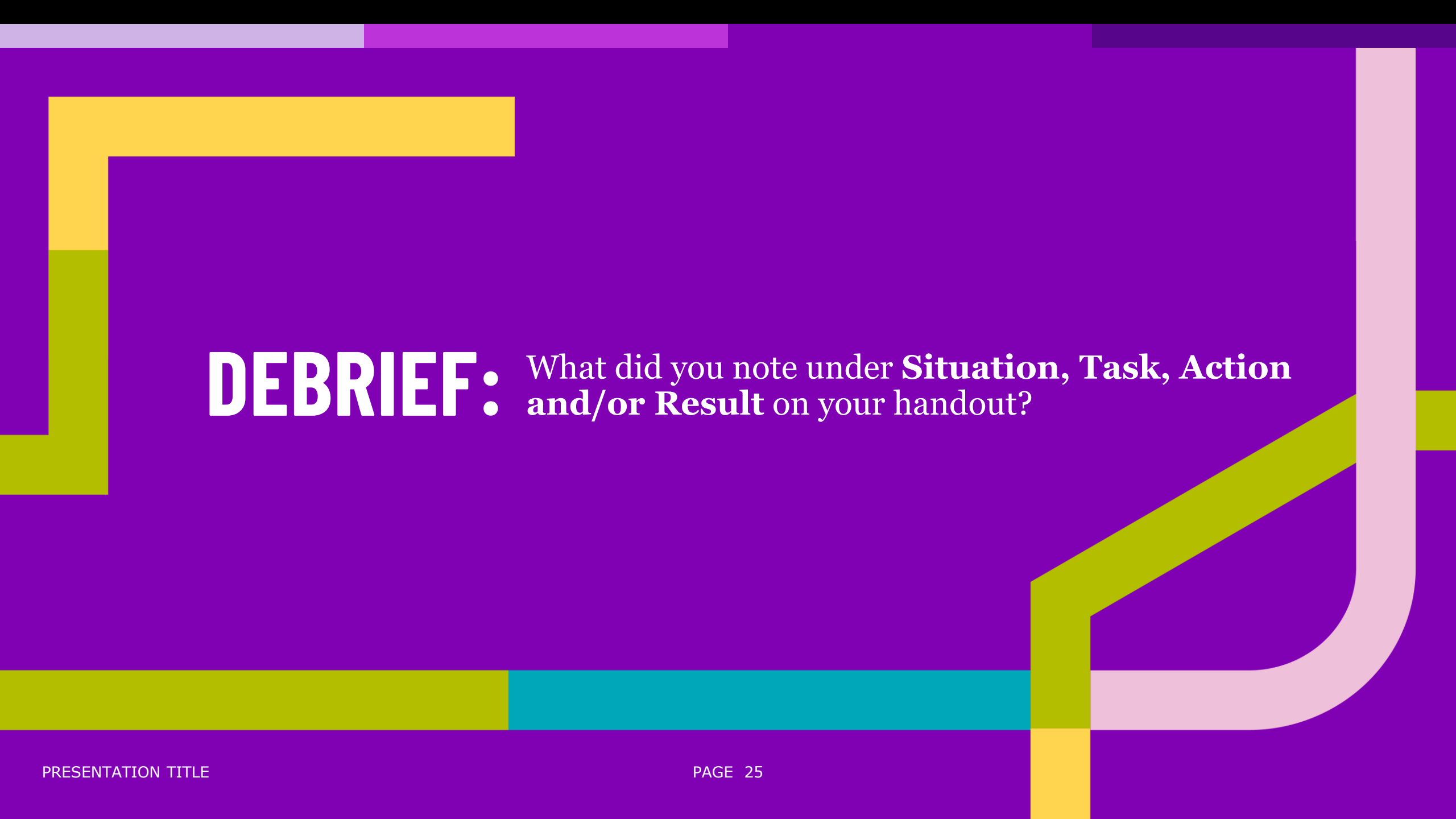
UNIVERSITY OF
WATERLOO | Centre for Career Development

★ THE STAR APPROACH

STAR Activity – Part A

Q: Give me an example of a time you took initiative.
Sample answer:

In my first-year Introduction to Mechanical Engineering course, we were assigned a group project to design and prototype a simple mechanical system—ours was a small wind-powered car. My team was struggling to make progress early on because we couldn't agree on a design direction, and no one was stepping up to organize our efforts. We were falling behind the timeline, and I was concerned we wouldn't be able to finish the project on time. Even though I was new to group projects in engineering, I decided to take initiative. I created a shared document where everyone could contribute ideas, and I scheduled a meeting outside class to discuss them. I also drafted a basic project timeline with key milestones and volunteered to lead the design research phase. During our meetings, I encouraged each member to take ownership of a part of the car—wheels, body, energy system—based on their interests. With a clearer direction and better coordination, our group quickly picked up momentum. We not only completed the project on time but also received positive feedback for our design process and teamwork. The experience taught me the value of stepping up early and organizing a team, especially when others are uncertain where to begin.

DEBRIEF: What did you note under **Situation, Task, Action and/or Result** on your handout?

SKILL ARTICULATION

STAR Activity – Part B:

1. Choose a behaviour-based question that you anticipate an employer to ask in an interview

   - Be sure to indicate the question on your paper

2. Create a written STAR response

CHOOSE ONE BEHAVIOUR-BASED QUESTION BELOW:

Refer to page 2 of Skills I and A handout, Written Star Response | Part B section | 5 minutes

- Describe a situation where you had to juggle several tasks at once and tell me how you prioritized your work.

- Tell me about a time when you had to make a judgement call on an engineering program or design choice. What did you consider when making that decision?

- Can you share a time when you had to deliver difficult feedback to a teammate or colleague? How did you approach the conversation?

- Walk me through a specific engineering challenge you faced –maybe a bug, a failed test or a design issue. What steps did you take to resolve it?

UNIVERSITY OF WATERLOO | Centre for Career Development

ACTIVITY REFLECTIONS

Questions about the STAR method?

Tips:

- Prepare one story that could be used for different questions

- Practice with a friend or in a mirror or record yourself

UNIVERSITY OF
WATERLOO | Centre for Career Development

REFLECTING ON YOUR ANSWERS

- Was your answer ~90 seconds long?

- What is your central message?

- What skills were highlighted in your answer?

- Could you have provided more or less detail in any portion of the STAR response?

- What impression do you leave based on your answer?

- How was your body language/eye contact/tone?

- How did you feel when answering?

UNIVERSITY OF WATERLOO | Centre for Career Development

YOUR NEXT BEST STEPS

- Take time to reflect on your first work term while it's still fresh!

  - What were you most proud of?

  - What skills did you develop?

  - Add the experience to your resume using experience bullet points

  - Skill development in other spaces (Coursera, LinkedIn Learning, and many more!)

- Seek new academic/life experiences to continue building skillset

- Keep working on your skills assessment chart and utilize when preparing for interviews

- Utilize your resources!

UNIVERSITY OF WATERLOO | Centre for Career Development

RESOURCES

- [Career Hub](#)

- [Book an appointment at the Centre for Career Development](#)

- [Recorded Sessions – past CCD workshops](#)

- PD19 course content

UNIVERSITY OF WATERLOO | Centre for Career Development

QUESTIONS?