

From Researcher to Industry: Communicating Your Skills Beyond Academia

Translating Your Academic Expertise into Industry Impact

Hosted by: Hani Safaei

Guest Speakers: Career Center Team Member, Dr. Esmaeil Kordi

Intended Audience

- Graduate students and postdocs considering industry careers
- Researchers exploring non-academic roles
- Anyone wanting to translate academic skills into business impact



Outcomes of This Workshop

- Understanding key differences between academia and industry
- How to present your skills for industry hiring
- Strategies to craft effective résumés and interview stories
- Actionable mindset shifts for career transition



Academia vs Industry: A Mindset Shift

- Academic success \neq industry hiring criteria
- Recruiters scan résumés in 6–10 seconds
- Hiring funnel: Résumé \rightarrow Screening \rightarrow Interview \rightarrow Offer



Takeaway Message:

You don't lack industry skills; you lack industry translation



Key Contrasts: Academia vs Industry

Academia

Industry

CV (long, comprehensive)

Résumé (1–2 pages, selective)

Credentials

Outcomes

Individual contribution

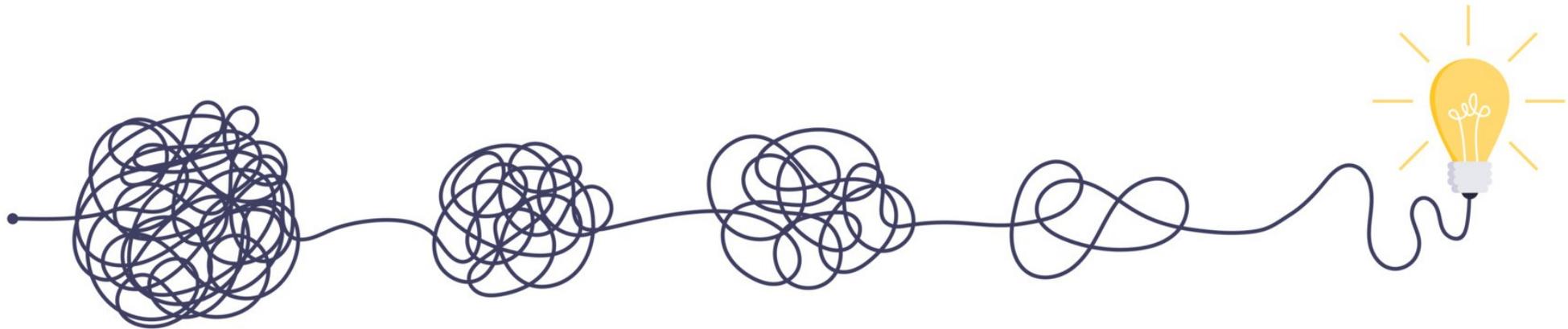
Team contribution

Novelty

Business value

Takeaway Message:

Industry doesn't ask how smart you are. It asks what problem you can solve.



Transitioning from Research to Industry: Resumes

Considerations and strategies

UNBC Career Centre Winter 2025

Agenda

1. Introduction
2. Technical Elements
3. Resume Review
4. Special Considerations
5. Resources
6. Questions

Introduction

- Research roles ask for CV's
- Industry roles typically ask for Resume's
- What's the difference

Resume

YOUR NAME

City, Province | 555.250.1608 | your.email@unbc.ca

PROFILE

A brief three to four sentence paragraph that showcases your relevant skills and background and serves as an introduction to the employer. This should be tailored to the job being applied for. Highlight your achievements and conclude with career goals. Make sure to use telegraph style writing, do not use personal pronouns such as I, me, etc.

EXPERIENCE

Job Title

Company Name | City, Province Mon 20XX – Mon 20XX

- Emphasize what you did instead of merely listing job duties.
- Where possible, attempt to quantify accomplishments.

Job Title

Company Name | City, Province Mon 20XX – Mon 20XX

- Reflect the job description requirements within these sections, by demonstrating relevant accomplishments and roles.
- Use action verbs whenever possible, such as "achieved", "managed", etc.

EDUCATION

Program Name

University of Northern British Columbia | Prince George, BC Expected May 20XX

- Relevant coursework, SLO involvement, etc., may go here.
- GPA is given little weight relative to other factors. Only include if > 3.5, if at all.

SKILLS

This section can be presented a few different ways. If a short-length list items are used with many skills, a bullet list can take up a lot of space. Listing them in a line, using separators such as commas or vertical bars can be more efficient. Examples follow on the next page.

- This section is optional but generally recommended.
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- If using bullets, that they are aligned throughout the resume.
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1 of 2

CV

YOUR NAME

City, Province | 555.250.1608 | your_email@unbc.ca

ACADEMIC CREDENTIALS

Program Name

University of Northern British Columbia | Prince George, B.C. Expected May 20XX

- Include relevant courses here.

RESEARCH EXPERIENCE

Job Title

Company Name | City, Province Mon 20XX – Mon 20XX

- Emphasize what you did instead of merely listing job duties.
- Where possible, attempt to quantify accomplishments.

TEACHING EXPERIENCE

Job Title

School Name | City, Province Mon 20XX – Mon 20XX

- Emphasize what you did instead of merely listing job duties.
- Where possible, attempt to quantify accomplishments.
- Might not apply so can remove this section if no experience

PROFESSIONAL EXPERIENCE

Job Title

Company Name | City, Province Mon 20XX – Mon 20XX

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HONOURS AWARDS & GRANTS

Award Title

Company Name | City, Province 20XX

Resume

YOUR NAME

City, Province | 555.250.1608 | your.email@unbc.ca

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HONOURS AWARDS & GRANTS

Award Title

Company Name | City, Province

20XX

One more general experience section

Different Experience Sections

PUBLICATIONS & CONTRIBUTIONS

Citation

- Bold your name in the author list to make it stand out more
- Keep citation formats the same throughout all publications

Ex.

Smith J, Jane M, Parker P. (2025). Weaving and breathing: A study on the principles and methods of North American underwater basket weaving. *Random Journal Title, Volume #*(Issue #), Page #-Page #

- Can also include artistic contributions
- Similar citation types, use [Square brackets] for medium/type

Ex.

Smith J. (2025). *Artwork name* [Medium/Type]. Fake Museum Name, City Name, BC, Canada.

CONFERENCES

Conference Name

Company Name | City, Province

Mon 20XX – Mon 20XX

- Describe what the conference was about
- Describe involvement if more than just attending (presenting)

PROFESSIONAL MEMBERSHIPS

Membership Title

Organization Name | City, Province

Mon 20XX – Mon 20XX

Membership Title

Organization Name | City, Province

Mon 20XX – Mon 20XX

PROFESSIONAL DEVELOPMENT

Course Title

Company Name | City, Province

Mon 20XX – Mon 20XX

- Typically, more professional focus.
- No need for bullet points if the course name conveys what it's about.
- Online diplomas, Training programs, etc.

INTELLECTUAL PROPERTY

Patents, Licenses, Copyrights, Trademarks

Ex.

Not the focus on a
resume

First Impressions

- Initial screening time for resumes can be short (10 seconds or less)¹
- Applicant Tracking Systems (ATS) are commonly used²
- If ATS is used, unclear formatting may filter out resume
- If formatting is poor, the reviewer may not read the resume

Technical Elements | *Spelling and Grammar*

- It still matters
- Mostly dealt with by technology
- List parallelism
- Follow capitalization rules, e.g., proper nouns

Technical Elements | *Formatting*

- Fonts: Size 10-12, stick to one font
- Spacing: Be consistent
- Emphasis: Minimal use
- Separation: Vertical bars, commas
- Alignment: Use **View** → **Gridlines** to verify alignment

Technical Elements | *Primary Structure*

- Header: Contact info, prominent name
- Summary/profile: Short paragraph
- Experience: Relevant, most recent first
- Education: No secondary school, list relevant coursework
- Skills: Should directly reflect employer requirements
- Typical length: One to two pages

Technical Elements | *Secondary Structure*

- Skills: Avoid redundancy
- Volunteer: Not typically required, often distributed into experience
- Certifications: If relevant, e.g., First Aid
- Hobbies/Interests: Aside from demonstrating 'culture fit', do not use
- Alignment: Be consistent

Taking a Closer Look

Top-down: structural, formatting, spelling and grammar

Have someone else review

Consider reading order

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Expected May 20XX

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No street

YOUR NAME

City, Province | 555.250.1608 | your_email@unbc.ca

LinkedIn (optional)

PROFILE

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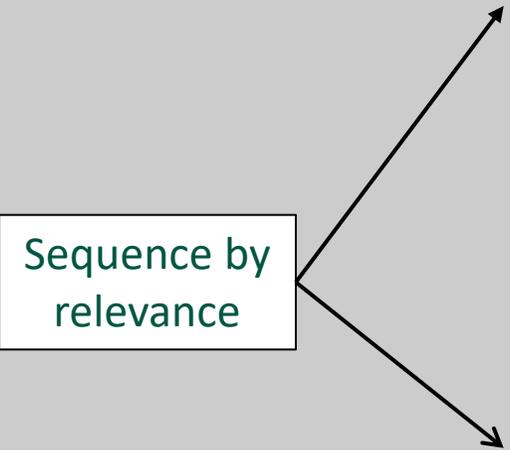
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- Limit the resume to one or two pages.
- Avoid the use of personal pronouns (“I”, “me”, “my”, etc.)

Sequence by
relevance



YOUR NAME

City, Province | 555.250.1608 | your_email@unbc.ca

PROFILE

A brief three to four sentence paragraph that showcases your relevant skills and background and serves as an introduction to the employer. This should be tailored to the job being applied for. Highlight your achievements and conclude with career goals.

Executive
summary

EXPERIENCE

Job Title

Company Name | City, Province

Mon 20XX – Mon 20XX

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Job Title

Company Name | City, Province

Mon 20XX – Mon 20XX

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EDUCATION

Program Name

University of Northern British Columbia | Prince George, B.C.

Expected May 20XX

PROFILE

A brief three to four sentence paragraph that showcases your relevant skills and background and serves as an introduction to the employer. This should be tailored to the job being applied for. Highlight your achievements and conclude with career goals.

What

EXPERIENCE

Where

Job Title

Company Name | City, Province

Mon 20XX – Mon 20XX

- Emphasize what you did instead of merely listing job duties.
- Where possible, attempt to quantify accomplishments.

Who

Job Title

Company Name | City, Province

Mon 20XX – Mon 20XX

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EDUCATION

Program Name

University of Northern British Columbia | Prince George, B.C.

Expected May 20XX

and conclude with career goals.

EXPERIENCE

Job Title

Company Name | City, Province

When →

Mon 20XX – Mon 20XX

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- Skills can be presented in a bulleted list or pipe-delimited list.

Detailed Examples

Bea Gonsalves

Toronto, Ontario, M1M 1M1 | beagonsalvez123@email.ca | 647-123-4567 | www.linkedin.com/bg123

Accounting and Payroll

PROFILE

- Detail-oriented and efficient BBA student with excellent knowledge of accounts receivable and accounts payable processes
- Demonstrated ability to thoroughly investigate and reduce reconciliation discrepancies
- Able to closely follow accounting practices and procedures with meticulous attention to detail
- Knowledge of payroll and benefit procedures with experience maintaining accurate employee records
- Collaborative team player with strong interpersonal and communication skills

TECHNICAL SKILLS & KNOWLEDGE

- General Ledger Accounts
- Financial Reporting & Analysis
- Accounts Receivable/Accounts Payable
- Internal & External Audit Reviews
- Bank Reconciliation
- Sage 50cloud
- AccountEdge Pro
- QuickBooks
- Payroll
- Advanced Excel

EDUCATION

Hon. Bachelor of Business Administration, Specialization in Accounting 2018 - Present

Trent University | Peterborough, ON

- Relevant courses: Financial Accounting, Human Resource Management, Auditing
- Dean's Honour Roll (2018 - Present)

Bachelor of Arts, English 2012

Universidad Andina Bolivar | Ecuador

- Equivalent to Canadian Bachelor of Arts, as recognized by World Education Services (2015)

RELEVANT EXPERIENCE

Accounting Placement Student Jun. - Aug. 2019

Blackburn Bookkeeping Inc. | Scarborough, ON

- Prepared monthly bank reconciliations and monthly expense statements for seven departments
- Assisted with auditing and expense report processing for 100+ employees with accuracy and efficiency
- Audited accounts payable to ensure accuracy in billing to general ledger accounts
- Assisted with the coordination and compilation of monthly and annual budgets
- Implemented a method for organizing data resulting in the improvement of information sharing between departments

Administrative Assistant Sept. 2013 - Jul. 2016

ABC Company | Markham, ON

- Scheduled 30-50 weekly appointments and meetings for Account Managers and their clients
- Maintained a high level of organization; implemented a new filing system and digitized where possible
- Tracked office expenses and inventory for three branches, ensuring that supplies were well-stocked
- Responded to customer inquiries, and redirected to appropriate departments with a high level of courtesy and professionalism

VOLUNTEER EXPERIENCE

The Seasoned Spoon | Trent University | Peterborough, ON Oct. 2018 - Present

Detailed Examples

Muhammad Sultan

muhammadsultan1@trentu.ca | linkedin.com/in/Muhammad-Sultan-058

COMMUNITY WORKER

HIGHLIGHTS OF QUALIFICATIONS

- Experience providing front-line services to diverse groups and individuals, including newcomers, youth, and persons with disabilities
- Extensive knowledge of community resources and personnel in the Peterborough area
- Experience researching gaps in community services and making recommendations to improve access
- Skilled in interviewing and educating youth with experience gained in peer support roles
- Teamwork and communication skills gained through collaborative, community-based research
- Advanced abilities with Microsoft Word, Excel, PowerPoint

EDUCATION

Bachelor of Arts, Psychology

Trent University | Peterborough ON

September 2016 - Present

- Relevant Courses:
 - Child and Family Development, Behaviour Modification, Abnormal and Social Psychology
- Trent Community Research Centre, Research Project "Food Bank Needs Assessment Survey" September 2017 - May 2018
 - Worked with Kawartha Food Share, a food distribution agency in Peterborough and the area
 - Developed and implemented a survey of people using food banks to see if there was a need for a new and independent central food bank
 - Produced a final report recognizing the positive work of the agency while recommending a need to further organize around root causes of hunger

RELEVANT EXPERIENCE

Group Leader

June 2019 - Present

Brock Mission, Peterborough, ON

- Facilitated a weekly support group for 15 unhoused persons offering mental health support, resulting in a heightened sense of community and wellbeing
- Implemented case plans with 10 clients experiencing the negative impacts of income insecurity; completed weekly follow-ups to ensure client safety and referred to agencies for additional support
- Developed and executed a 4-hour event for 46 youth to learn about the implications of income insecurity, resulting in the mobilization of a living wage advocacy group in the Peterborough region

Volunteer Support Worker

Summer 2017, 2018

Youth Help Centre, Peterborough ON

- Provided assessment, advocacy, intervention, and follow-up services to 18 youth with social barriers at a daily drop-in program
- Established ongoing supportive working relationships while accessing relevant services for clients, establishing a 25% increase in participant retention
- Delivered dynamic presentations about program services to community partners to maintain community connectedness, and increased the organization's network by 8 community partners

ADDITIONAL WORK EXPERIENCE

Cashier | Dairy Queen | Peterborough ON

July 2016 – December 2018

VOLUNTEER EXPERIENCE

Kitchen Assistant | The Seasoned Spoon (Trent University) | Peterborough, ON

May 2018 - Present

Conclusion

- Resumes are subjective; these are general guidelines
- Less is often more
- For any given element, ask “What problem does this solve?”
- Use resources at your disposal, e.g., Career Centre

Resources

- UNBC Career Centre, Room 7-153
- We also offer help with CVs, cover letters, and interviews
- 1:1 booking service → Experiential Learning Hub → Appointments
- Online resources → Site → Student info → Career prep tools
- Keep an eye out for drop-in career ambassador services



**If you have NOT
accessed the
Experiential Learning
Hub, use this code to go
to the registration form**

Access the Experiential Learning Hub Here!



Questions?

References

1. <https://www.prnewswire.com/news-releases/ladders-updates-popular-recruiter-eye-tracking-study-with-new-key-insights-on-how-job-seekers-can-improve-their-resumes-300744217.html>
2. <https://www.selectsoftwarereviews.com/blog/applicant-tracking-system-statistics#:~:text=According%20to%20recent%20studies%2C%20nearly,businesses%20currently%20use%20an%20ATS.>



From Researcher to Industry: Communicating Your Skills Beyond Academia,

partnership with the UNBC Career Centre



This presentation explores the transition from academic research to industry roles, focusing on how to translate your specialized expertise into the language employers understand.

4: Transferable Skills Researchers Already Have

Make your experience “industry-legible” without changing the substance.

- **Hard skills:** data, modeling, technical writing, compliance
- **Soft skills:** uncertainty, stakeholders, delivery, rapid learning
- **Communication:** STAR stories + resume translation

Hard skills: what industry is trying to “see”

emphasizes reliability, decision relevance, and defensibility.

- **Data collection, validation** → decision-grade inputs (quality, validation, traceability)
- **Modeling, simulations, decision support** → decision support tools (fitness-for-purpose)
- **Writing for non expert stakeholders** → stakeholder translation (actionable, defensible)
- **Regulatory, Safety, Ethics, and Compliance Exposure** → compliance-ready execution (auditability)

Data collection → data quality engineering

- **Research data** is often **incomplete, noisy, biased, or inconsistent**
- Work happens before “analysis”: **cleaning, filtering, normalization, validation**
- Industry labels this as: **data engineering + QA/QC + governance**
- **Why it matters**: decisions are only as reliable as the pipeline feeding them
- **Poor quality creates operational, compliance, and reputational risk**

How Industry Translation appears in real jobs:

Example: academic language → industry resume signal

Before

“Collected water-quality data during doctoral research.”

After

“Designed and implemented a data quality framework for field measurements (calibration, missing-data handling, validation checks) to ensure decision-grade outputs.”

- **Key shift:** from “collected data” → “ensured defensible, decision-grade data”

In environmental consulting data must meet regulatory quality standards before using in permitting or submission reporting. Data **must be cleaned and validated before, screened for outliers** and failure **artifacts** before being used in performance models.

Modeling & simulation → decision support

- **In academia:** models are judged on novelty and explanatory insight
- **In industry:** models are judged on fitness-for-purpose
- Signals industry cares about **reliability, interpretability, robustness**
- **A model is not an artifact;** it is embedded in a workflow to inform decisions
- **High-value practices:** sensitivity analysis, uncertainty quantification, validation, scenarios

Researchers are often trained in advanced diagnostics such as **sensitivity analysis, uncertainty quantification, model validation, and scenario testing.**

Example: A flood scenarios → industry framing

Academic resume bullet *“model development and sensitivity analysis.”*

Industry resume bullet

“Developed scenario-based predictive models to evaluate system performance under varying operational and environmental conditions, providing decision support for risk mitigation and planning.”

- **Key shift:** method → **decision** impact (what the model enables)
- **Add constraints when relevant:** data-sparse, regulatory deadlines, stakeholder needs

Technical writing → Non-Expert stakeholder translation

Academic artifacts

- Ethics applications
- Safety protocols
- Reports for funders
- Progress summaries
- Interdisciplinary presentations

These forms of communication are structurally similar to



Industry equivalents

- Client reports
- Regulatory submissions
- Technical memos
- Internal decision briefs
- Stakeholder updates

The *core skill is translation*: the ability to convey complex technical content in a form that is understandable, defensible, and actionable for non-specialist decision-makers.

In industry, technical professionals are evaluated on their ability to:

- Explain assumptions
- Communicate limitations
- Justify recommendations
- Provide traceable reasoning

Example: “progress report” → decision documentation

Academic resume bullet “writing annual progress reports.”

Industry resume bullet

“Produced technical documentation translating complex analyses into actionable recommendations for non-specialist stakeholders, supporting informed decision-making under regulatory and operational constraints.”

- **Key shift: “writing” → translation + recommendation + defensibility**

This communicates that the researcher understands stakeholder-oriented communication, not just scholarly writing.

Governance, safety, ethics → compliance execution

- **Academia** includes governance frameworks:

Research ethics boards, safety protocols, data protection, institutional compliance

- **Transferable capability:**

Researchers learn to operate within structured regulatory environments, document decision processes, justify methodological choices, and demonstrate due diligence.

- **Industry Translation:**

Legal requirements

Safety standards

Quality assurance systems

Audit trails

Regulatory reporting frameworks

Example: ethics and safety exposure → industry framing

Academic resume bullet *“I worked under my institutional ethics approvals and safety protocols.”*

Industry resume bullet

“Conducted technical work within formal governance and compliance frameworks, ensuring that data handling, safety procedures, and documentation met institutional and regulatory standards.”

This signals preparation for environments where technical decisions carry legal, safety, or regulatory consequences.

- **Signals: *audit-ready documentation, safety awareness, regulatory alignment***



4.2.1 Skills (Industry Context)

More Than You

We are talking about:

Problem-solving under uncertainty

Stakeholder communication & expectation management

Time management with competing priorities

Rapid learning & toolchain adaptation

Problem-solving under uncertainty

- Most real problems are **ill-defined**: incomplete data + evolving constraints
- **Industry** expects **defensible decisions** under imperfect information
- **Key behaviors of effective Professional:**
 - document assumptions, revise with new evidence, communicate trade-offs

Industry Translation:

Organizations value individuals who can:

- **Frame ambiguous problems**
- **Identify tractable sub-problems**
- **Propose provisional solutions**
- **Iterate as constraints change**



“structured problem-solving” or
“decision-making under uncertainty,”

Two Industry example framings

Example A

“Regularly structured ill-defined technical problems into tractable analytical tasks, making defensible methodological decisions under uncertainty and iterating solutions as constraints emerged.”

Example B

“When operational constraints disrupted data collection, adapted the analytical approach in real time, preserving decision relevance while transparently documenting limitations and trade-offs.”

This language signals **adaptability, judgment, and accountability** qualities industry associates with senior professionals, not just technical contributors.

Stakeholder communication and expectation management

- Research already includes **diverse stakeholders** with competing success criteria

↓

supervisors, co-investigators, funding agencies, ethics boards, institutional administrators, and interdisciplinary collaborators

Each group has distinct **priorities**, **technical literacy levels**, and **success criteria**

In industry, Stakeholders may include:

- Clients
- Project sponsors
- Managers
- Regulatory authorities
- Cross-functional teams (e.g., engineering, legal, operations, finance)

The technical professional's role is to ensure that stakeholders **understand what those analyses mean**, what **they do not mean**, and **how they should inform decisions**.

↓

In the Industry translation this skill described as:

- **Stakeholder management**
- **Expectation alignment**
- **Technical communication**
- **Client-facing communication**

Two industry example framings

Example A

“A doctoral student coordinating between a supervisor, a data provider, and an ethics committee”

“Coordinated technical deliverables across multiple stakeholder groups with differing priorities, aligning scope, timelines, and technical constraints to ensure project objectives were met.”

Example B

“A researcher presenting preliminary results to a committee, while focusing uncertainty and limitations.”

“Routinely communicated provisional technical findings to non-specialist stakeholders, clearly articulating assumptions, limitations, and confidence levels to support informed decision-making.”

These framing highlight professional **maturity and **communication competence**.**

Time management with competing priorities

- **Definition of a myth!** : academic work is self-paced — reality: constant deadlines and dependencies

Researchers operate under continuous pressure from

- Submission deadlines
- Teaching obligations
- Funding milestones
- Project dependencies
- Administrative requirements

Managing these parallel obligations

- **Core elements:** prioritization, scheduling, scope control, trade-off management

- **Industry Translation:** workload management, project ordering, resource allocation

Two industry-ready example framings

Example A

“a postdoctoral researcher balancing multiple deliverables”

“Managed parallel technical workstreams with overlapping deadlines, prioritizing tasks based on impact and delivery risk to ensure timely completion of critical milestones.”

Example B

“a teaching assistant balancing grading, student support, and research tasks”

“Balanced concurrent responsibilities across teaching, research, and administrative commitments, maintaining delivery quality under time and resource constraints.”

Rapid learning and toolchain adaptation

Academic definition: Researchers continuously onboard new methods, tools, techniques, and domains

In industry, toolchains evolve due to:

- Software upgrades
- Platform migrations
- Organizational changes
- New regulatory or operational requirements

Professionals are expected to go onboard with new systems with minimal formal training and integrate them into production workflows.

Two industry-ready example framings

Example A

“A researcher adopting a new statistical package or simulation platform.”

*“Rapidly onboarded new **analytical** tools and **integrated** them into existing workflows **to meet evolving project requirements, minimizing disruption to delivery timelines.**”*

Example B

“A researcher learning domain knowledge outside their original discipline (e.g., integrating policy or regulatory limitations into technical work)”

*“Independently acquired domain knowledge outside primary training to ensure technical outputs were **aligned with operational and regulatory contexts.**”*

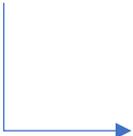
How to articulate skills: make experience evaluable

The Need for Structured Storytelling in Industry Communication

In industry, the primary challenge for researchers isn't a lack of experience, but **how they describe it**.

While academic communication focuses on methodology and theory, **industry communication prioritizes outcomes and decision-making**.

To evaluate candidates consistently, employers move away from unstructured stories and use frameworks like **STAR (Situation, Task, Action, Result)**.



This method allows interviewers to systematically **assess problem-solving and collaboration** by focusing on why your work mattered and what changed because of it.

Structured Storytelling like STAR makes your experience legible to industry evaluators

STAR: The minimum structure for interview stories

S + T (Context & ownership)

- **Situation:** operational context + constraints
- Include: time pressure, data limits, stakeholder needs, regulatory context

- **Task:** your responsibility and scope
- Signal ownership: lead vs contribute vs define scope

A + R (Judgment & impact)

- **Action:** what you did — decisions, trade-offs, coordination
- Describe approach selection + constraint management

- **Result:** impact (not only revenue)
- Valid results: reliability ↑, uncertainty ↓, risk mitigated, decision informed

Important clarification:

Results can be framed in terms of **decision quality**, **process improvement**, or **risk reduction**, not only in terms of **metrics performance**

Translating Academic Narratives into STAR (Worked Example 1)

Academic Description:

“I conducted doctoral research on flood risk modeling using hydrodynamic simulations and scenario analysis.”.

overview

This description provides content, but not evaluative structure. It does not allow an interviewer to assess judgment, responsibility, or impact.

Industry-Oriented STAR Framing:

Situation

Assess flood risk under uncertain boundary conditions in a data-sparse watershed; results needed to inform planning assumptions.

Task

Design the modeling framework and evaluate sensitivity of predicted flood extents to key parameter uncertainties.

Action

Implemented scenario-based hydrodynamic workflow; ran sensitivity analysis; coordinated with domain experts to validate assumptions under limited data.

Result

Identified consistently high-risk zones across scenarios; improved reliability of downstream planning assumptions; informed prioritization of mitigation strategies.

Turning struggle into professional competence

Definition:

While researchers often hide failures; industry recruiters view **the ability to discuss challenges** as a sign of **professional maturity**. Employers don't expect **perfection**; they **want to see how you handle adversity**.

In an interview, the value lies in how you:

- **Diagnose:** Identify the root cause of an issue.
- **Adapt:** Pivot your strategy when things go wrong.
- **Mitigate:** Manage risks and navigate constraints.
- **Communicate:** Honestly address limitations and lessons learned.

Example A: Framing a Methodological Setback

Unstructured Academic Framing:

“My initial methodology didn’t work, so I had to change it.”

This framing is **vague** and **under-informative**.

Example A: Structured Industry Framing (STAR):

Academic unstructured framing: “My initial methodology didn’t work, so I had to change it.”

Situation

“During the initial phase of a data analysis project, the available dataset did not meet the assumptions required by the planned modeling approach.”

Task

“I was responsible for ensuring that the analytical framework remained defensible under these constraints.”

Action

“I evaluated alternative modeling approaches, consulted domain experts to assess trade-offs, and redesigned the workflow to accommodate the data limitations while preserving analytical rigor.”

Result

“The revised approach reduced model sensitivity to data gaps and produced stable outputs that were suitable for decision support, albeit with clearly documented limitations.”

This example demonstrates **judgment**, **adaptability**, and **accountability** traits highly valued in industry.

Failure as iteration and risk management

Definition: In an industry setting, projects rarely follow the original plan perfectly. Top professionals aren't defined by avoiding mistakes, but by their ability to treat setbacks as part of a **continuous improvement process**.

This includes:

- Early identification of risk
- Transparent communication
- Adjustment of scope or method
- Documentation of trade-offs

Researchers are trained in iterative refinement through hypothesis testing and experimental design.

This is directly transferable to **industry** practices such as **agile development**, **iterative design**, and **continuous improvement**.

Example 3: Framing an Unsuccessful Outcome

Academic unstructured framing: “The experiment did not produce significant results.”

Situation

“An experimental approach was initially selected to evaluate the performance of a modeling technique under constrained data availability.”

Task

“I was responsible for assessing whether the method produced outputs suitable for downstream analysis.”

Action

“After implementing the method and evaluating diagnostic metrics, I identified that the approach introduced unacceptable uncertainty under the available data conditions.”

Result

“I documented the limitations, recommended against deployment of the method in this context, and proposed an alternative approach that reduced risk for downstream users.”

This reframing presents failure as **risk management and quality control**, not as personal deficiency

Conclusion on Section 4.3

“Industry interviews are not examinations of **intelligence** or **theoretical knowledge**. They are **structured evaluations** of how you operate within real organizational systems. The STAR method allows you to translate complex academic work into professional narratives that demonstrate **judgment, accountability, adaptability, and impact**. The content of your experience does not need to change only the structure and framing through which that experience is communicated.”

In-Class Exercise

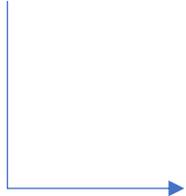
Micro-exercise: Rewrite one CV bullet

*The formula : Action + Skill + Context +
Outcome*

In-Class Exercise

Micro-exercise: rewrite one CV bullet

- **Action:** What did you actually do?
- **Skill:** Which capability/tool/method did you use?
- **Context:** Under what constraints or setting?
- **Outcome:** What changed (impact, reliability, decision support, risk reduction)?



This structure aligns with **how recruiters scan resumes** in seconds. They are **scanning for signals** of applied capability and impact.

Before/After Examples (Academic into Industry)

Example 1: Modeling / Analysis Academic-style bullet (weak):

“Conducted doctoral research on flood risk modeling”

Industry-style rewrite:

Developed scenario-based flood risk models using hydrodynamic simulations to support decision-making under data and regulatory constraints.

Example 2 : Data Work Academic-style bullet (weak):

“Analyzed environmental datasets for my thesis”

Industry-style rewrite:

Analyzed large, noisy environmental datasets using Python and statistical methods to improve the reliability of inputs for downstream modeling workflows.

In-Class Exercise Plan

Pick one bullet point from your current CV or a recent project. We're going to rewrite it so that an industry recruiter can understand what you did and why it mattered.

Use this structure:

Action + Skill + Context + Outcome.

- Minute 0–1: **Frame task** pick one CV bullet; rewrite using the formula :
- **Action + Skill + Context + Outcome**
- Minute 1–2: **Silent rewrite**
keep it short; focus on clarity
- Minute 2–3: **Pair check or self-check**
(action verb? skill? context? outcome?)

Self-Check

Check your own bullet against the four key questions:

- Do I have an **action verb**?
- Is a concrete **skill or tool** named?
- Is the **context** clear?
- Is there an **outcome** or purpose?

Pair-Check

Ask your neighbor to read your bullet and answer this question:

“Can you tell **what I actually did** and **why it mattered**?”

Rapid Feedback Criteria

- **Strong bullets:**

- Start with clear action verbs (developed, designed, implemented, led)
- Mention specific skills or tools
- Provide operational context
- Indicate impact, purpose, or improvement

- **Weak bullets:**

- Start with vague verbs (worked on, involved in, participated in)
- Lack tools or methods
- Contain no outcome or purpose

- **Common Mistakes to Warn Students About**

- Writing responsibilities instead of actions
- Listing topics instead of contributions
- Using abstract academic language



5. Industry Interviews for Researchers

5.1 How Industry Interviews Differ from Academic Interviews

Definitions in academic and industry sections:

Academic hiring focuses on intellectual trajectory and research originality, **prioritizing theoretical depth and long-term scholarly contributions**. Success here depends on proving subject-matter expertise and a clear future research agenda.

Conversely, **industry interviews** assess operational effectiveness. Employers prioritize reliable delivery within budgets and timelines over novel ideas. Once technical skills are screened, **the focus shifts to applied problem-solving, communication, and how a candidate navigates professional ambiguity and team dynamics**.

5.2 Common Industry Interview Question Types

- 5.2.1 Behavioral Questions
- 5.2.2 Situational (Hypothetical) Questions
- 5.2.3 Technical Application Questions

5.2.1 Behavioral Questions

Behavioral questions use past performance as a **predictor of future success**. Rather than asking hypothetical questions, interviewers require specific evidence of how you have navigated real-world challenges like **conflict, ambiguity, and tight deadlines**.

Common Questions:

- "Describe a time you managed a difficult stakeholder."
- "Tell me about a project that didn't go as planned."
- "How have you handled competing priorities?"

What Interviewers are Evaluating:

- Recruiters look for specific professional traits:
 - **Accountability** : Taking accountability for outcomes.
 - **Judgment**: Making reasoned decisions under pressure.
 - **Communication**: Managing stakeholder expectations clearly.
 - **Resilience**: Adapting effectively to failures or setbacks.



5.2.1 Situational (Hypothetical) Questions

Situational questions evaluate how you **structure ambiguous problems** and reason through unfamiliar scenarios. The goal isn't to find a single "correct" answer, but **to demonstrate your ability to identify risks and propose defensible, logical solutions.**

Common Questions:

These questions differ from academic examinations in that they emphasize:

- Trade-offs
- Assumptions
- Implementation feasibility
- Communication of limitations

What Interviewers are Evaluating:

Structured Thinking: Breaking down complex problems logically.

Constraint Awareness: Recognizing limits in time, budget, or data.

Stakeholder Sensitivity: Understanding how your actions affect others.

Risk Management: Identifying and mitigating potential downsides.

Communication strategy



5.2.3 Technical Application Questions

Technical questions in industry interviews **assess whether candidates can apply their technical background to practical, operationally constrained problems.**

Common Questions:

- "Describe a time you managed a difficult stakeholder."
- "Tell me about a project that didn't go as planned."
- "How have you handled competing priorities?"

What Interviewers are Evaluating:

Interviewers are less interested in theoretical completeness and more interested in whether the candidate can produce **usable technical outputs** under real-world constraints.



5.3 Addressing the “You don’t have industry experience” Objection

Context and Reality:

The critique "you don't have industry experience" is rarely a doubt of your talent; it is a **risk-reduction tactic**.

Employers use prior industry roles as a shorthand for professional reliability and familiarity with corporate workflows.

This creates a barrier for high-potential candidates coming from academia.

Professional Reframing Strategy:

Researchers often mistake this prompt for a request for a chronological CV or academic biography. **In industry**, this is actually a strategic narrative designed to prove your immediate value. Your goal is **to pivot quickly from your background to your professional identity and relevance**

- **Project delivery:** Delivering complex milestones on schedule.
- **Stakeholder Coordination:** Managing collaborators, advisors, and external partners.
- **Decision making under Constraints:** Making high-stakes decisions with limited time or data.
- **Accountability for outcomes:** Being fully accountable for the final results.

Example:

“While my background is academic, the structure of my work closely mirrors industry environments. I **worked under fixed deadlines**, coordinated with multiple stakeholders, delivered applied technical **outputs for decision-making**, and **operated within regulatory and governance frameworks**. “

This reframing shifts the discussion from “**sector label**” to **work structure and professional behavior**.

5.4 “Tell Me About Yourself”: Industry-Oriented Framing

The **effective response** is not to dispute the statement, but to **reframe academic experience in terms of functional equivalence**. This involves demonstrating that the candidate’s prior roles involved:

Key Objectives:

Identify: Define your current professional role.

Quantify: Highlight your primary competencies.

Solve: Explain the specific problems you excel at fixing.

Align: Connect your history directly to the company’s needs.

Recommended Structure:

Current professional focus: Your current focus and professional title.

Core technical or professional Strengths: Your top 2–3 technical or professional pillars.

Applied problems addressed: The types of applied challenges you have successfully navigated.

Future: Why this specific role is the natural and logical evolution of your career

Examples:

“Tell me about yourself” (Industry Version)

Example A: Applied Data / Modeling Role (Environmental / Engineering Context)

“My background is in **applied modeling and data analysis** for complex environmental systems. In my recent work, I **developed scenario-based models to support decision-making under data and regulatory constraints**, working closely with **interdisciplinary teams** to translate technical outputs into actionable recommendations. I’m now looking to bring that applied analytical approach into an industry setting where technical work directly supports operational and planning decisions.”

Why this works:

Starts with **function**, not degree

Emphasizes **decision support**

Mentions **stakeholder interaction**

Signals readiness for **applied industry contexts**

Examples:

“Tell me about yourself” (Industry Version)

Example B: Researcher
Transitioning to Consulting /
Client-Facing Roles

“I’ve worked on applied research projects where the core challenge was **translating complex technical analysis into clear recommendations for non-technical stakeholders**. I’ve led **end-to-end** project components, from defining the analytical approach to **communicating limitations and implications to decision-makers**. I’m now looking to move into a consulting environment where those translation and problem-structuring skills can be applied **to real client problems**.”

Why this works:

Frames research as **project delivery**

Emphasizes **communication and translation**

Aligns explicitly with **consulting context**

Examples:

“Tell me about yourself” (Industry Version)

Example C: Technical Specialist Moving Toward Product / Operations

“My background is in developing and validating analytical workflows for **data-driven decision support**. In my recent role, I focused on building **robust processes for handling imperfect data** and **communicating uncertainty to stakeholders** responsible for operational decisions. I’m interested in applying this experience in an industry environment where analytical tools are embedded into real workflows and have **direct impact on outcomes**.”

Why this works:

Highlights **workflow integration**

Mentions **imperfect data** (very industry-realistic)

Focuses on **operational impact**

In-Class Exercise Plan

Tell me about yourself

Minute 1–3: Individual Drafting (Silent Work)

Use this *a simple structure*:

Template:

- **My background is in...** (*function, not degree*)
- **I work on...** (*type of problems / applied focus*)
- **I typically contribute by...** (*skills / value*)
- **I'm interested in roles where...** (*industry relevance*)

Please write **3–4 sentences only**.

Emphasize:

“No degrees, no thesis titles, no publication lists.”

Minute 3–4: Pair Share

I ask you to turn to a neighbor and read their 30-second. Then check the with

quick feedback criteria:

Instruction:

“Do you hear industry language, or academic language?”

**Strong
responses
include:**

Function-based identity (e.g., “applied modeling,” “decision support,” “technical analysis”)

Reference to **impact or use** of work

Industry-aligned language (e.g., stakeholders, decisions, operations, delivery)

Clear direction toward industry

**Weak
responses
include:**

Degree-first framing

Overly narrow thesis descriptions

No mention of application or stakeholders

Vague claims like “I am passionate about research”

6. Q&A – Technical Transition Guidance for Researchers Entering Industry

- Moving from academia to industry is tough, so this part of the guide is all about breaking down those barriers. We're not just offering quick fixes; we're showing you how the industry actually hires and onboard people so you can stop guessing and start prepared.

6.1 Pathways into Data Science and Technical Industry Roles

Context and Framing:

Getting into data science or tech roles in fields like energy and engineering is a hot topic for researchers. The real hurdle isn't a lack of smarts; it's that university training doesn't always line up with how the business world actually works.

In the private sector, data isn't a solo research project it's part of a bigger machine. Companies want people who can handle messy data, plug their work into existing systems, and explain what it all means to clients or bosses who aren't tech-savvy.

Technical Skill Areas That Carry Weight in Real-World Work:

While sophisticated modeling has its place, employers in applied settings tend to focus on the core capabilities that ensure dependable, repeatable results.

**Technical Skill
Areas That Carry
Weight in
Real-World Work:**

Data handling and pipelines,

Reproducibility and version control,

Model interpretability and communication and,

Domain-context integration



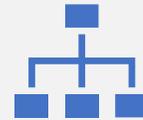
Data handling: Basic SQL, data validation, and reliable pipelines are essential because data quality, not model complexity, is the usual constraint.



Interpretability: Clear explanations of model behavior, uncertainty, and sensitivity are crucial in applied and regulated settings.



Reproducibility: Version control and reproducible workflows enable collaboration and long-term maintainability.



Domain integration: Analytical work must fit regulatory and operational contexts, making domain awareness as important as technical depth.

Certificates versus demonstrated Competence:

Formal certificates and short courses can signal some exposure, but they rarely carry the same weight as evidence of real applied work. Hiring managers tend to prioritize:

- Evidence of end-to-end project delivery,
- Examples of translating analysis into decisions, and
- Clear articulation of how technical outputs were used in practice

Theses and **applied research projects** can fill this gap when they're presented as **practical, problem-focused work** rather than **purely academic studies**.

6.3 Ethical and Effective Use of Ai Tools in Application and Interview Preparation

Context and Professional Expectations

AI-assisted drafting for resumes, cover letters, and interview preparation has become routine. In most professional settings, **the concern is** not the use of these tools themselves, but **whether applicants understand, verify, and stand behind the material they submit**. Employers evaluate tools by how well they support productivity while preserving accountability and quality.

6.3 Ethical and Effective Use of Ai Tools in Application and Interview Preparatio

Appropriate Professional Use: AI can be a helpful aid for tasks such as:

- Structuring answers
- Producing initial drafts
- Spotting unclear or incomplete sections
- Adjusting tone and phrasing

Candidates are still responsible for:

- Reviewing and critiquing AI-generated text
- Confirming technical correctness
- Ensuring the language reflects their actual experience
- Owning all claims and representations

Relying on Ai without understanding or validating the output creates professional risk, especially in technical roles where inaccurate claims can lead to real operational consequences.

- *“Using AI as a drafting and structuring tool is consistent with how professionals use automation in the workplace. What matters is that you remain accountable for the accuracy, clarity, and integrity of what you present.”*

6.4 Are Job Descriptions Sufficient Preparation for Interviews?

- **Context and Framing:**

Job descriptions outline formal requirements, but they are often broad, idealized, or standardized across an organization. Relying on them alone can lead to interview answers that match the wording of the posting but lack concrete, operational depth.

Technical Preparation Strategy:

Strong preparation comes from comparing and synthesizing information across three sources:

- Job descriptions
- The organization's real operating context (projects, clients, regulatory pressures)
- The day-to-day expectations of comparable roles in the wider sector

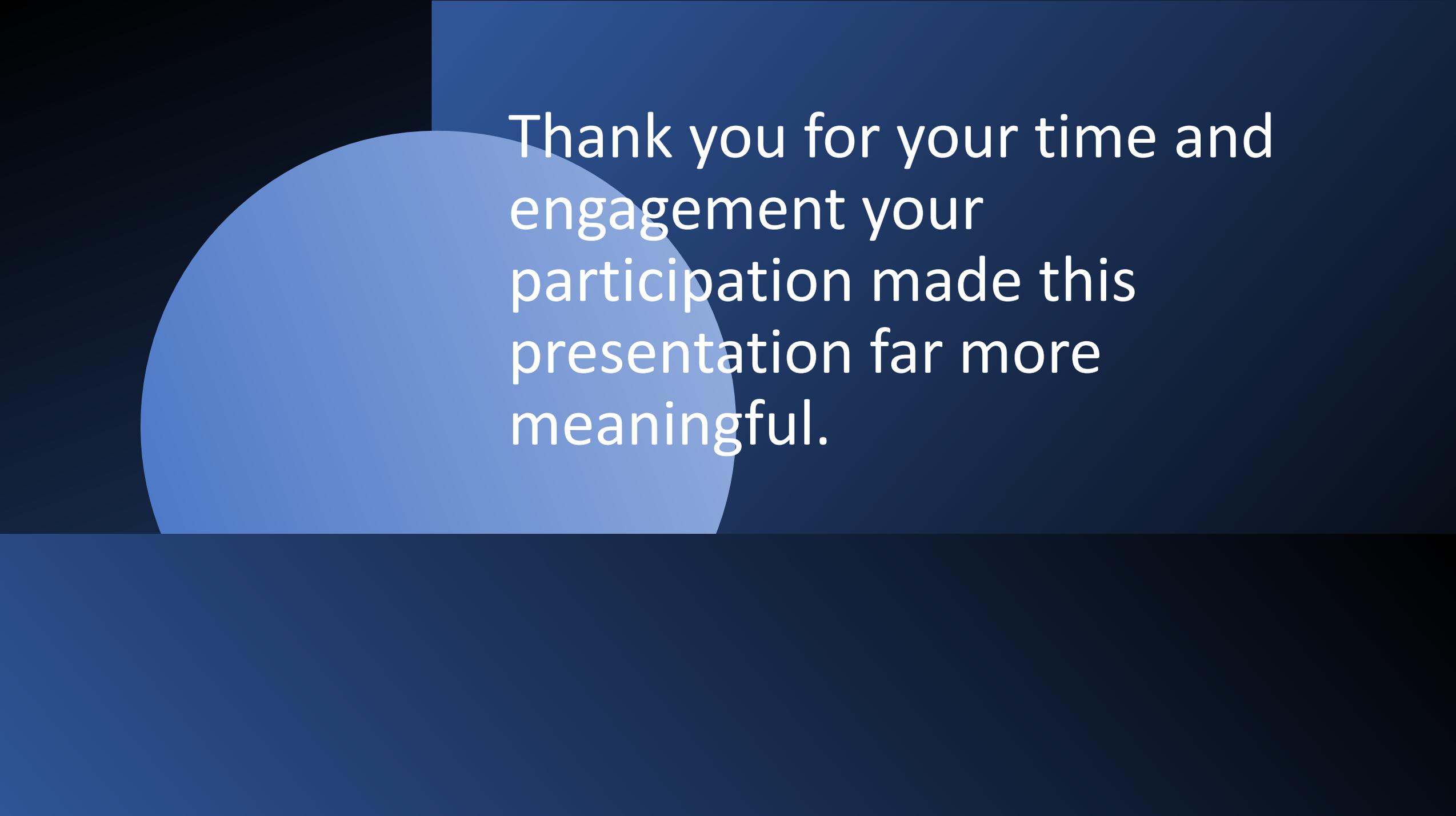
From the job description itself, candidates should pull out:

- **Core competencies** the role consistently emphasizes
- **Skills or themes** that appear repeatedly
- Hints about **practical constraints or responsibilities**

They can then link their own background to these competencies **using structured examples** such as STAR to show **how their experience translates into applied, real-world capability.**

6.5 Closing Framing for the Q&A Section

“Transitioning from research to industry is not a process of abandoning academic identity. It is a process of professional translation supporting how you describe your work, your skills, and your value with how organizations evaluate contribution, risk, and delivery. When researchers frame their experience in operational terms projects delivered, decisions supported, uncertainty managed the perceived boundary between academia and industry becomes far less substantial than it initially appears.”



Thank you for your time and
engagement your
participation made this
presentation far more
meaningful.