Academia vs Industry: Choose Your Own Adventure

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A vs B: So Simple, Right?

**Industry** could be:
- Engineer
- Research scientist
- Eng manager
- Corporate Leadership
- Consulting
- Government
- Start-up

**Academia** could be:
- Professor at research-oriented university
- Teaching-oriented position
- Academic administration
- Research associate
Turn and Talk to Your Neighbor

What is your plan:
Industry vs Academia vs Undecided?

Why? What do you enjoy?
What is Important to You?

Must-haves vs. Nice-to-haves?

- Stability vs. Change?
- Excelling in Your Career?
- Having Nice Things?
- Physical Fitness?
- Schedule Flexibility
- Control of technical agenda?
- Supporting Others?
- Minimizing Effort vs. Being Challenged?
- Living Near Relatives?
- Having a Family?
- Visibility?
Does What You’re Doing Align With What’s Important to You?

• What you value most could change over time
• Absolutely no one is in your exact situation
• A PhD gives you options
• Be true to yourself and your values
• Don’t be afraid to course correct
Traditional Professor/Instructor Roles

Different Types of Programs

Research universities: Ph.D. program - emphasize research

Colleges/universities: M.S. program - emphasize teaching

Teaching-oriented colleges: B.S. program – emphasize teaching & service
What can I do now to prepare for an academic job?

**Research**
- Apprenticeship: learn from advisor, doing it, and from others
- Grant writing
- Corporate connections (for funding, student job placement)

**Teaching**
- Teaching experience, teaching assistantship, teach some even if don’t have to
- Professor-in-training programs, courses

**Service**
- Organizing student organizations/support groups – Women in CS
- Working on department committees
- Volunteering at conferences
Academic Career Ladder

Professorial Ranks
- Assistant: Tenure-track, 5-7 years
- Associate: Usually with tenure
- Full (no set time limit to achieve)
- Chaired Professor – endowed

Administrative Ranks
- Department Chair/Head, Dean, Provost, President

Instructor
- Can vary significantly on course load
- Some roles offer tenure equivalent

Postdoctoral/Research Associate
- Usually on “soft money”
Industry Careers
# Industry Careers

<table>
<thead>
<tr>
<th>Role</th>
<th>Visibility</th>
<th>Flexibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineer</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Research scientist</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Eng Manager</td>
<td>Medium (all internal)</td>
<td>Medium</td>
</tr>
<tr>
<td>Corporate leadership</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Consulting</td>
<td>Low</td>
<td>Varies/Low</td>
</tr>
<tr>
<td>Government</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Start-Up</td>
<td>Low</td>
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</tr>
</tbody>
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Same role can vary a lot from group to group
Moving Between Industry and Academia

From University to Industry

Must build real systems
Establish visibility and knowledge in industry

From Industry to University

Must continue publishing
Establish visibility and reputation in research community

CRA-W
Computing Research Association
Women
For Your First Job

Neither requires prior experience; your degree is your ticket.

Academic jobs are more rare:
more competitive
require more patience
All Choices are Valid!

People move in all sorts of directions
Do what you love
If you don’t love what you’re doing, do something else
A PhD gives you that option
Take ownership of what you do now and what you want to do next