



Career Basics for Physics Majors: How to Make Your Work Work For Employers

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What You'll Have When We're Through

- **Resume** of five, six sections that shows where you've been and what you've been doing
- **Cover Letter structure** that provides details and context about areas of your resume relevant to job, *and how your knowledge of physics principles will help you on the job*
- **Brief introduction to any recruiter**
- **Response** to 'Tell Me About Yourself'

You'll be able to generate effective application materials, and know how to talk about your work.

What Does A Resume Do?

- Connects you to perspective employers
- Shows where you've been
- Reveals what you've worked on
- Provides details about skills, implementation
- Gives an idea about what you're good at
- Emphasizes both technical and essential areas
- Answers questions a recruiter will have about you
- Contains keywords (relevant terms) for employers
- Uses only nouns and verb phrases
- Sectionalizes information for quick read

Resume Crafting and Rationale

Everything in your resume will be listed in **reverse chronology**, unless you want to emphasize something for a company. Then you can pull it out of sequence. Use Bold and separate sections with shadowline for ease of read. **No complete sentences; just nouns and verb phrases.** Do not edit your resume for length. Ever. Your resume will be as long as it needs to be. Please ignore anyone who tells you resumes must be limited to one page. That idea is 50 years old. Your resume needs enough sections, enough content, enough key words to be considered. **By graduation, you'll have close to two full pages.**

The Resume Basic Six (Sections)

- **Education:** Ga Tech and high school basic info
- **Skills:** What you're getting good at/acquiring/using
- **Projects:** Usually class, can be group or individual
- **Research:** Necessary for Physics majors
- **Experience:** Work for pay (It all counts)
- **Leadership:** Volunteer work, campus & community

This listing is also your resume section order, unless/until you work in your field as intern/co-op, or research assistant. Then, Experience is moved to second resume section.

Heading and Education

For Heading:

Name, phone, email, LinkedIn url, portfolio/github

For Education (Two Entries):

- Begin with Tech
- List major, then expected date of graduation on right
- Include certifications and, later, study abroad
- Provide brief previous school info formatted the same as above
- Use 1-3 outstanding notes as bulleted items

Skills

- Creates “heart” of resume
- Includes both technical, essential (human) skills
- Breaks down those two types of skills
- Pays attention to “keywords”
- Begins with concepts from your major (as subsection)
- Constructed from nouns only, no qualifiers
- Has first subsection of concepts from major
- Contains tools, procedures, protocols, abilities
- Provides glimpse of all exposure
- Uses items from first day of class*

Projects

- Shows implementation of listed skills
- Provides practicality of physics major
- Taken from class, usually
- Contains verb phrases (no sentences, except for project description)
- Provides tasks
- Showcases depth of work in topic area
- Updated every semester
- Listed first day of assignment
- Can be group or individual
- Might be “self assigned”
- Originates in core classes. Probably.

Note: Your Projects section will be focused on your major, beginning your second year. Culminates in senior design/capstone. Usually originates as a class assignment, but any/all projects can count, however.

Research

- Complements Projects
- Shows further knowledge in field and lab
- Includes data analysis, a valuable skill
- Reveals combined work/study, problem/solution
- Adds depth and nuance to knowledge base

Experience

- Pertains solely to work for compensation
- Shows recruiter how you've used your time*
- Can come from any/all paid work
- Provides further implementation of skills
- Contains 2-3 verb phrases of duties/tasks
- Becomes **second** resume section when internship, co-op, research assistantship attained

Leadership

- Pertains solely to volunteer work
- Originates on campus and/or community
- Provides crucial essential skill(s)
- Can come from club offices held
- Exhibits “socialization”
- Requires updating every semester
- Can serve as source for interview responses
- Shows your humanity

Maintain Your Resume

- Update at the beginning of every semester
- Translate/transfer your physics work into action
- Build Skills section
- Recall “keyword search”
- Think like a recruiter to include content
- Be prepared to talk about anything listed
- Tailor information for company, as needed*
- Avoid ‘arty’ fonts, extraneous design details
- Make it about who you are, what you’ve done
- Think “Exposure” for now, not “Experience”

Find Job Postings (Now)

- Activate your **Careerbuzz** account
- Seek postings according to your major
- Read through for qualifications, requirements
- Visit company websites
- Research jobs in your industry
- Group three skills from resume to apply
- Think 2 technical, 1 essential*
- Don't "overthink" qualifications
- Seek further jobs via Google search

Craft A Great Cover Letter (Every Time)

- Go from job posting/research about job/company
- Create cover letter **every time** you apply
- Use letter to exhibit **three skills** company requires
- Exhibit psychology, communication skills here
- Show you've studied needs of company
- Provide details, numbers, facts within
- Use action verbs only
- Make claims backed up by resume
- Do not begin with word "I"
- Follow formula and examples provided
- Treat application process as two-fold

Cover Letter Components

- Find three skills that make you eligible
- Make them two technical, one essential*
- Make first sentence reader focused
- State where you found the job and job title
- Include three skills in second sentence
- Make body paragraph all about details
- Explain your use of each skill
- Provide what, how, why, facts, figures
- Make details your friend
- Close pleasantly

***Your three skills usually will be 1. your major, 2. tool, 3. communication and/or leadership**

Tips for An Effective Virtual Presence

- Prepare by researching organization/company
- Set up your area
- Have printed copy of your resume, plus notepaper and pen
- Write down recruiter name(s)
- Smile. And smile some more
- Look into the camera, but be natural
- Dress the part, all the way down to your shoes
- Check your lighting
- Make it as conversational as you can (Interviews are “conversations”)
- Rely on your skills, projects, work duties
- Avoid speaking in paragraphs*

Introduce Yourself Using Major, Skill(s)

Make it formulaic:

- Smile
- State your name, major, year
- Tell why you chose your major (don't overthink it)
- Pick a (technical) skill and say you're good at it
- Illustrate how/why/what you've done with it
- Pick another (essential) skill, repeat
- Ask what the company has for someone with your talent

Say It Like This:

- Hi, I'm _____, a _____ year, majoring in _____. I chose my major because _____. I want to make an impact in the field of ___ by _____.
- I have been exposed to/am experienced with _____. (tool, lab procedure, work task, data acquisition, equipment, writing/speaking, something you'd use in a Skills section) Be specific.
- I have implemented this skill to _____. (Describe something from a project, assignment, or at work) Be specific.
- I have used my abilities in communication/leadership/adaptability/design (art) to _____. Be specific.
- What do you have for someone with my (emerging) abilities?

What Does “Tell Me About Yourself” Mean?

- Do not provide (boring) autobiography
- Do not ramble
- Do not gush
- Focus on who you’re talking to
- Tell them how you got here, what you’ve been doing
- State something you’re good at
- Tell how and when and why
- Add another skill
- Assert how and why you’d like to use these (general) skills
- Adjust aspiration according to company
- Bring up family, if asked

A Sample TMAY Statement

I'm a physics major *because* I want to find order; I like applying mathematical principles to procedures. (WHY?) I'm interested in **robotics**, which began when I was in a high school project creating a robotic arm. (SKILL) I also taught myself to **code** two summers ago. (SKILL) And I'm an excellent **writer, and also speak conversational Spanish**. (SKILL) My **research** will mean I'll soon be equipped to analyze many types of **data**.

I'm open to translating/transferring my work in physics to all types of engineering, but I especially am interested in sustainability, and I want to use mathematical principles and logic to solve energy renewal problems. (ADJUSTED ASPIRATIONS)

I think all of that work means I can benefit you as an intern. May I provide you with more details?

Another Sample TMAY Statement

I'm an **industrial engineer with a physics minor** because I like efficiency. But it goes further back than that. I was always good at **math**; the logic of it was satisfying to me when I was in grade school. Then, when I was introduced to **mathematical modeling** in a science project in high school, I knew I could use my math skills for a purpose; I could use math to predict what would happen. Which is what I'm doing now in my research. (Provide another sentence of details.) Along the way, I've also picked up **Java** skills, so I can help with **websites** for *customer interaction and ordering*. I know you have a need for these skills. (Add a sentence about what you read in the job posting, company website, mission statement.) I have analyzed **data** in my last internship, and during my current research. (Add another sentence connecting this work to the company need for data analysis.)

I'm open to all aspects of industrial engineering, but I especially am interested in/good at **supply chain** issues. (Add a sentence here about what you can do with supply chain, maybe from your research.) And I want to use **mathematical principles and my knowledge of software and hardware** to help you create a seamless chain of supply. I **speak conversational Spanish**, and have **customer service** experience, so I can also talk to your clients as needed. (ADJUSTED ASPIRATIONS)

I think all of that work means I can benefit you as your _____. May I provide you with more details?

Make Your Work Work

- Translate/transfer physics principles to real-world application
- Think like a recruiter
- Ask yourself what you'd be looking for in a new hire
- Update your materials early every semester
- Remember the application process has two steps, not one
- Write out your introduction and memorize
- Use introduction to create TMAY
- Teach yourself to talk about what's on that resume. Every word.
- Review job postings on CareerBuzz, company websites
- Use your skills as your descriptor
- Never say "I can solve problems." Tell what problems and how
- Provide enough details so a recruiter can see you at it
- Register to attend virtual Career Fair, Jan 25, 26. Details on our website.