

## Chapter Six Resumes: Traditional and Otherwise

Job applicants now have something in common with the boxes of cornflakes and cans of tomatoes that get beeped by a laser at the supermarket checkout line. Employers have begun using scanners and character-recognition technology to screen the thousands of resumes they receive. Computers are making the first cut of applicants for them.

Don't blame the employers; they can barely keep up with the torrent of applications and resumes they receive. It doesn't seem to matter if the unemployment rate for EEs is high or low; employers still receive hundreds—even thousands—of resumes in response to the ads they place in trade magazines and on their Web sites.

But volume isn't their only reason for automating the resume process. Increasingly, the qualifications that employers want are the types of things a scanner has no trouble reading. Hirers are looking for people with well-defined skills and very specific experience, and it doesn't take a genius—or even a human being—to recognize words or phrases like "SMT" or "C++" or "University of Illinois."

As if resumes weren't problematic already.

Although writing a resume is hardly rocket science, job hunters often lie awake at night, wondering if their resume contains enough "action" verbs or whether they should mention that Rollerblading is their favorite off-hours pursuit. Their anxiety stems from a belief that if their resume isn't perfect, they won't get an interview and consequently they'll never get a job.

We think the whole obsession with resumes has gotten out of hand. There's no such thing as a "perfect" resume that "knocks 'em dead" every time. Your resume's job is to describe your skills and accomplishments plainly enough so that an employer can tell within about a minute whether you fit his or her immediate staffing needs or not. If you can do that (and if you don't shoot yourself in the foot with a sloppy resume, or a resume that's not customized to each employer, or one that raises more questions about your past than it answers), then you'll be fine.

There are three fundamentals that you should keep in mind when preparing your resume. You need to choose:

**Format.** Of the two basic formats—chronological and functional—you need to figure out which one works best for you.

**Content.** It's essential to fill the resume with skills and accomplishments that are relevant to the job you're applying for.

**Distribution channels.** You need to pick the most effective distribution methods for your resume, including Internet, mass mailing or selective mailing.

Format: the chronological resume is in vogue

Engineers are straightforward people who don't cotton to fanciful resumes. An applicant for the job of head chef in a four-star restaurant might design her resume in the form of a menu, but engineers rarely stray from the two basic resume formats: the chronological and the functional. The former presents your life in a linear fashion, using your job history as its vertebrae. The latter paints a more holistic view of your skills, talents, functions and achievements.

A chronological resume suits people with the ideal job history: steady progress up the career ladder, no more than two or three employers, depending on your age, and a clear sense of direction in one industry. If you came out of school and spent three years at a Fortune 1000 company, then found a job with more responsibility at a smaller company for two or three years, the chronological resume will work for you.

A functional resume conveys more of a sense of you as a person. It often works for people with problematic job histories. If you're a nomad, if you're changing careers in midlife, or if you market yourself as a short-term hired gun rather than a company man, this type of resume will work for you. The functional resume does, however, make some hiring managers suspicious. "People who use functional resumes a lot of times have something to hide," says one recruiter.

Technical recruiters prefer the chronological format. They need proof that your skills are up-to-date, that your last employer was in a compatible industry, and, ideally, that your projects have generated solid sales. They don't have time to reread your resume three times to

figure out where you worked at a certain time, as they may have to do with a functional resume. As a compromise, many job seekers hybridize these two formats into the so-called "semifunctional" resume. (For sample resumes, see Appendix C.)

Content: Focus on accomplishments—and customize!

Recruiters like resumes that start out with a specific "objective," such as "a research position in telecommunications hardware development." Then they want to see a capsule summary of your skills, followed by a list of the places you've worked, in reverse chronological order. Under each employer, describe what positions you held, what projects you worked on, and how those projects turned out.

As one recruiter put it, "Tell me what you produced and how you helped the company. If you can say something as specific as, 'I was the lead designer on a new fax modem. I coded 3,000 lines of C code, I prepared the budget and made all the presentations, and we got the project done in six months and sold 20,000 units in the first year,' then the hiring manager will be jumping out of his chair."

If you recently graduated and don't have a work record, you can still introduce your experience in reverse chronological order, putting your graduate and undergraduate schools, your major, your thesis projects and your GPA in place of employer, title, contracts and results. Eventually your work history will crowd your education off the front page of your resume, but not yet. In some cases, mentioning your alma mater is critical: Hiring managers often have a soft spot for fellow alumni or for graduates of a local institution.

If you're well into your career, you should indicate in the "objective" section at the top of the resume if you are willing to relocate or not. If you don't know for sure, say that you'll relocate for the "right opportunity." Keep in mind that a decision not to relocate will severely limit your range of opportunities.

Don't put your desired salary on your resume. The salary range is often included in the ad for the job opening anyway. If not, you should be able to infer from the size of the company and the level of expertise desired what the salary will be, adjusting for regional differences. As a rule, hiring managers have a budget and won't readily exceed it. That's why they often hire the best affordable candidate rather than simply the best.

"Format doesn't really matter that much," says that human-resources manager at an East Coast resistors and capacitors maker that receives about 75 resumes whenever it advertises an opening. "We just look to see if the person has the right skills, background and so forth. I think, if everyone was perfectly honest, we'd admit that salary requirements are the biggest factor." Like the rest of America, they hunt for bargains.

Always customize your resume to fit the company you're applying to. Customization starts with the name of the person you are sending your resume to. Never send it to "Sir," "Madam" or "To whom it may concern." Employers don't like to receive form letters any more than you do. If necessary, call the company itself and find out whom to send it to.

Similarly, you should customize your objective. If you're flexible about your objective, it doesn't hurt to align it with what the employer is looking for. (If your goals are incompatible with the employer's needs, why apply?) The same principle applies to your skill summary and your work history.

You can't change your skills set, of course, but you can choose which skills to emphasize in the small space that your resume allows. And while you can't change your job history, you can highlight the projects that your next employer might be most interested in hearing about and avoid projects that might weaken your chances. If you're trying to move out of the defense industry, for example, you should play down the military aspects of your project.

### The brave new (electronic) resume

As mentioned earlier, large employers are beginning to use scanners to winnow down the stacks of resumes they receive. The scanner takes an image of the resume and digitizes it in a form meaningful to the system's optical character-recognition software.

These software systems have "core grammars" of up to 120,000 different job titles, skills, companies, colleges, majors, degrees, and they can use the context of an ambiguous word to determine its meaning. They can be confused, however by the use of certain characters, fonts and typographical styles, so follow whatever instructions are given and keep it simple and legible. (See box on "Tips for writing an 'electronically friendly' resume.")

## Distributing your resume in cyber-space

The Internet has revolutionized the way people are distributing their resumes. In the past, a job seeker might mail his resume to a list of employers, or in response to a specific ad. Today, job hunters can simply deposit their resumes at various resume "drops" on the Internet, where employers can browse through them. The IEEE offers a link to such services through its Web site. Headhunters, advertising firms, coalitions of corporations, entrepreneurs and college placement offices also sponsor resume drops.

The effectiveness of posting on the Internet has not yet been established. But some drops are clearly more appealing than others. The best ones charge employers a browsing fee while charging the job seeker nothing. Some drops actively try to match resumes with the job postings they receive from companies. Certain drops specialize in high-tech careers. Some dropsites save you time by offering hyperlinks to other career-related Web pages.

Electrical engineers are doubly blessed by these new resume drops and job-posting services. First, members of no other profession use the Internet more. At the same time, electronics and computer engineers have "hard skills" that are easy to enter and scan.

"Job seekers who stand to gain the most from insertion in computer resume databases are those who have mainstream definable education and skills—particularly technical skills—that can be measured in some way.... Individuals who are occupationally popular in resume databanks include those in such professions as engineering, computer science," says Joyce Lain Kennedy, author of *Electronic Job Search Revolution* (John Wiley & Sons, 1994).

## Tips for writing an "electronically friendly" resume

Emphasize nouns instead of verbs; the action verbs that sparkled on your paper resume won't be useful for electronic resume searches.

Use industry-specific nouns that characterize your skills accurately.

Know the current buzzwords for your profession. Read journals, newspapers and help-wanted ads to identify the keywords that will help potential employers find you. [such as ATM, ASIC, C++ etc.]

Use your keywords throughout your resume and in the proper context!

Avoid the repetition of important words. You only need say it once for the computer to find it!

Don't use bold or italic fonts. The computer may not be able to read your text.

Use the spell checker on your word-processing program. Misspellings may not be recognized by the scanning device.

Do not include your home address or phone number on an electronic resume. Use your e-mail address only.

Here are just a few of the resume drops on the Internet:

1. IEEE-related sites. At the IEEE home page <[www.ieee.org](http://www.ieee.org)>, hyperlink to employment services or Job Listing System. From there, you can jump to "Electrotechnology Resume Referral Service." Members can list their resume there free for six months. At <[www.resumelink.com/IEEE.Info.without.resume.html](http://www.resumelink.com/IEEE.Info.without.resume.html)>, you get a template where you'll see separate pop-up windows for technical skills, job functions, type of engineering, as well as fields for work history, education and other vital data. Or use <[www.resume-link.com/IEEE.Info.with.resume.html](http://www.resume-link.com/IEEE.Info.with.resume.html)> if you want to paste in your own resume. For confidentiality, you can block your own employer from reading your resume.
2. Recent graduates will appreciate the spirit of the Main Quad, a Web site run by cool dudes for their fellow Generation-Xers and the young at heart. <[www.mainquad.com/quad/services/resCreatorFolder/resCreatorHtmls/e-resCreator.html](http://www.mainquad.com/quad/services/resCreatorFolder/resCreatorHtmls/e-resCreator.html)>. Paste your resume and cover letter into the fields here, then pick any of dozens of high-tech and other companies from Apple to Xilinx to send your material to. Or hyperlink directly to the Web sites of those employers and e-mail them.
3. CareerMosaic <[www.careermosaic.com](http://www.careermosaic.com)> is one of the older and most reliable Web sites for job seekers. At the CareerMosaic Resume Center, you can post your resume free for 90 days. The Resume

Center indexes the most popular Usenet <.jobs.wanted> newsgroups daily.

4. From the Virtual Job Fair <www.vjf.com> table of contents, choose the "resume center." Fill in the blanks on their template or paste in your own resume and submit it to up to 500 high-tech employers with "thousands of openings." You can submit anonymously or use your name.

5. Net-Temps <www.net-temps.com/index.html>. Pick a region of the country where you'd like to work. About 20 companies will come up. When you input your resume, it gets e-mailed to all the companies on the list. There's a hyperlink to every company listed, so you can go to their Web site and find out more about them.

6. Techonline <www.techonline.com/neweb/tol1.html>. As its name suggests, this Web site specializes in high-tech jobs. From the main page, you can hyperlink to industry-specific pages, such as DSPnet, where companies like Philips, Analog, White Mountain and others post detailed job descriptions. You can drop your resume or e-mail each company directly.

7. NationJob Network <www.nationjob.com>, is one of the more imaginative resume drops. "P.J.Scout" a fictional Wild West scout, looks for matches between you and hundreds of subscribing high-tech companies. This free dropsite is especially good for EEs.

8. Newsgroups <misc.jobs.resumes> is a place to drop your high-tech resume—there are many there. On the Web, you can reach it via Best Bets, <www.lib.umich.edu/chdocs/employment/job-guide.sci.html>.

9. With E-span's ResumePro Database, <www.espan.com/info/respro.html>, you just e-mail your resume in ASCII text to resume@espan.com.

Have employers embraced these new services, or is this just a cyberfad? It's too soon to tell. One CEO of a small New Hampshire-based computer firm says that he still ranks "networking" and "newspaper ads" ahead of the Internet as a source of job candidates. A recruiter in Silicon Valley says that headhunters and employers are bewildered by all the resume databases on the Web; they don't always know how old or viable the resumes are.

Of course, many electronics companies post want ads right on their home pages, or provide e-mail addresses where applicants can send their resumes. So instead of weeding through job postings on the Web, you can cull e-mail or home-page addresses from the want ads and display ads in trade publications, and apply directly to the company that placed the ad.

Executive recruiters who use the Internet usually “play the keywords.” For instance, they might enter the name of a certain microprocessor, such as I-960, or a technology, such as DSP. That’s why it’s so important for job seekers on the ‘Net to make sure that the names of tools and products they’ve worked with are easily discernible.

“The recruiters are using the ‘search engines’ and you have to create your resume with that in mind,” says one headhunter. “Spell out what operating systems you know, what programming languages. I’ll do a search of ‘kernel Unix’ and get maybe 150 hits. Then I’ll throw in another word like Austin or Convex to narrow it down. The bane to a search is when they say DOS 4.1/5.0/6.0. The slashes throw the search engine off.”

A long shot in the dark

Those who believe in the “numbers game” approach to job hunting say that you should send your resume to every employer and recruiter in your field, every fellow alumnus and former co-worker, and every possible site on the Internet. Others say that the “shotgun” method rarely pays off.

Similarly, there’s a longstanding debate over how much time you should spend worrying about the precise wording and structure of your resume. Some job-search experts promote the idea that you can’t get an interview without a dazzling resume, and therefore you must sweat every detail on the resume until you achieve perfection. Contrarians disagree. They say that resumes, like job-application forms, are mainly a formality. If three-fourths of all jobs are filled by networking, they argue, how important can a resume be?

“Your resume is not your ambassador,” says Nicholas A. Corcodilos, a New Jersey-based consultant and author of *The New Interview Instruction Book* (North Bridge Press, 1994). “Ever try to get a date by mailing out a resume? It’s a piece of paper! Among thousands! Are you willing to trust your future to it?”

“Print up 25 copies of your resume,” Corcodilos recommends in his book. “Only give it to managers who request it after you’ve talked or met with them.”

## The cover letter

With all this talk about electronic resumes, it's important not to forget that a resume isn't really complete without a strong cover letter. A well-written cover letter will convey a sense of you as a real person and make it more likely that you'll be invited for an interview. A cover letter is also your opportunity to customize your resume for each company you apply to, and it helps you distinguish yours from all the other applicants' resumes.

Cover letters, in fact, have never been more important. Many ads for engineers now cite "superior written and verbal communication skills" as a requirement for jobs, and the cover letter is an excellent place to demonstrate that you can write intelligently. If you're not much of a writer, don't use that as an excuse to avoid the cover letter. Do the best you can and then show your cover letter to good writers and ask for their advice.

Keep the cover letter short—four paragraphs at the most. Make sure that the spelling, punctuation and grammar are absolutely perfect. Careless errors on the resume or cover letter will reflect poorly on your overall intelligence and capability.

What makes a cover letter effective? Ideally, your cover letter will help you "connect" with the reader on a personal level that will establish that there is a real person behind the resume. At the very least, the cover letter should be addressed to a specific individual. (You may have to call the company to find that out.) If you've heard something good about the company, mention it.

Whatever you do, don't fall into the trap of writing a stiff, formal cover letter that makes you sound like a robot. Demonstrate your interest in the job, your knowledge of the company, and whatever you and the readers of the letter might have in common. The cover letter is the warm-up act for the resume.

## Using on-line resources to help you write your resume

There are Web sites that provide a smorgasbord of information about resumes and cover letters. These sites are maintained by university

placement offices, proprietors of fee-based resume databases, and by advertising agencies, recruiters and authors trying to plug their books. You can scroll through the information or download entire articles.

Here are some sources of wisdom (whose URLs are, we repeat, subject to change):

1. The Writing Center at Rensselaer Polytechnic Institute <[www.rpi.edu/dept/llc/writecenter/web/text/resume.html](http://www.rpi.edu/dept/llc/writecenter/web/text/resume.html)> This site provides a good overview of the elements of a resume and the steps you should go through when writing one. One article, "Preparing a Resume," will even tell you what nouns, verbs and adjectives to use. Although aimed primarily at students, most of the advice is universal.
2. "Preparing Your Resume and Cover Letter" <[www.careermosaic.com/cm/crc/crc2.html](http://www.careermosaic.com/cm/crc/crc2.html)> A service of CareerMosaic, one of the pioneers of the on-line frontier, this site offers hyperlinks to other pages, such as "Jack Lynch's Grammar & Style Notes," the "Purdue On-line Writing Lab Research Information Page," the "RPI Writing Center" and "Writer's Resources on the Web."
3. "Help Guides for Job Search" <[www.wm.edu/crsu/career/stualum/guidjob.html](http://www.wm.edu/crsu/career/stualum/guidjob.html)> Sponsored by the College of William and Mary, this site offers hyperlinks to at least four resume-writing guides and two interviewing guides, as well as links to sources of classified ads, such as the National Business Employment Weekly and the Chicago Tribune.
4. NCS Career Magazine <[www.careermag.com/careermag](http://www.careermag.com/careermag)> In addition to advice on resumes, this page maintains a forum where job seekers can post queries, swap information and solicit help for specific problems. It has special forums on subjects like "managing life between jobs," "workplace issues," "interview techniques" and "salary negotiations." It also has a resume drop.
5. Tips on Resume Writing <[www.montana.edu/~wwwcp/tips.html](http://www.montana.edu/~wwwcp/tips.html)> Produced by Montana State University, this site helps job seekers use the HTML language to design their own Web page and build a multimedia resume that may include photographs or access to the text of your scientific publications. Yes, you can create your own billboard on the infohighway.

Keeping track and following up

Whenever you send a resume to a specific company, either on-line or via the mail, keep a log or record of where and when you sent it. (Some on-line resume sites tell you who will see your resume.) A week

or two after you send it, follow up your mailing with a telephone call. Don't call the human-resources department; call the individual who will be making the hiring decision, the person to whom you sent your resume and cover letter.

Use the follow-up call to suggest an interview or to add new information. Never make demands or take up much of the person's time. As long as you are brief and to the point, the employer won't mind you're calling. Tactful persistence never hurt anyone's chances of landing a new job.

## Conclusion

Don't fret needlessly about your resume. Like many misleading ideas that contain a grain of truth, the notion that getting an interview depends entirely on the resume, and that the resume has only a few seconds to make an impression, has persisted for years and done untold damage.

Confronted by this myth, the unfortunate job candidate sees no alternative but to try to create a resume that is all things to all people—which only leads to anxiety and, ultimately, to demoralization.

As a rule, job seekers should spend less time trying to guess what every resume reader wants and more time presenting their own goals and assets accurately. Only then can they draft a resume and cover letter with confidence.

## Frequently Asked Questions

Q. Should I put references on my resume?

A. Rarely. Definitely not a resume that's going to be broadcast indiscriminately. Only on a resume that's sent selectively and only if you receive the reference's permission in advance.

Q. What's an easy way to keep track of my resumes?

A. Use a spreadsheet from a program like Excel, and create a list of contacts, noting their names, company names, addresses, phone numbers, date of contact and type of contact.

Q. Should I have an expert prepare my resume?

A. If you don't mind spending from \$25 to \$150, you could satisfy your curiosity and find out what a professional could do for you. But as long as you have a word processor and a laser printer (or even a good ink-jet printer), you should do it yourself. Either way, you'll be providing all the information.

Q. Should I put my salary requirements on the resume?

A. The conventional wisdom is that you never mention numbers until you're offered a job. Ironically, it's one of the things a resume reader wants to know, however. He or she has a budget, and wants to know if you'll fit into it. The best advice: Let them guess what you'll want, based on your employment history and education.

Q. Should I put personal data in, such as hobbies or civic-group affiliations?

A. Not unless it is relevant. Membership in IEEE would be relevant. Membership in the PTA probably wouldn't. The same criterion holds for hobbies. If you're a champion runner, say so. Lots of companies did (and may still) field serious track teams. Good runners were always encouraged to apply.

Q. If I use a resume database, how do I make sure my current employer doesn't see it?

A. Some databases allow job seekers to block certain employers from seeing their resume, but others do not. Check before you submit your resume.

## The Four Most Common Resume Blunders

At the very least you should avoid these errors:

1. Paying for resume advice. There is no absolutely right or wrong way to prepare a resume. All of the information that you'll need to write your resume can be found in this or similar books or at one of the on-line career centers. There's no sense in hiring a professional resume-writer to do what you can easily do yourself.

2. Failing to customize. Many people send the same resume every time they apply for a job. It's essential to customize the resume for each job opportunity. If you research the company properly, you'll know what to emphasize on your resume and what to leave out. The more you customize, the better.

3. Offering a limp handshake. Out of modesty, perhaps, or a misguided sense of professionalism, some job seekers bury all their

best selling points. According to William S. Frank, author of *The Resume Repair Kit*, people are 75 percent more marketable than their resumes reveal. In short, if you have something to brag about, like a patent or a degree from one of the top engineering schools, make sure it can't be missed.

4. Speaking a foreign language. If you're trying to leap from one industry to another, don't let your resume include jargon that was used at your last employer's. For instance, civilian employers hate resumes that are studded with unfamiliar, undefined acronyms from the world of defense contractors.