

Some Job Search Advice

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My Background

- B.S. in Industrial Engineering at Virginia Tech & additional Consulting & Projects training (*later*)
- Co-op student (*7 work quarters while in college*)
- Worked 5 yrs. as an Area Industrial Engineer
- Worked 12 yrs. as a Management Consultant (*worked in 15 Industries and 25 states & Canada*)
- Worked 23 yrs. with the Boeing Co. as an IE-Special Projects Manager & Coach (*retired*) [*all twin-aisle airplanes: 747, 767, 777 & 787*]



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- IISE - Industry Advisory Board (IAB)
 - IISE Fellow
 - Seattle IISE Chapter - Past President
 - Puget Sound Engineering Council (PSEC) - Past President (*made up of 22 local engineering societies*)
 - University of Washington - *mentor ISE students*



General Job Search Tips

Professional Networking:

- Expand your Networking to include some Professional Networking (which is different from Social Networking).
- Attend local events that will allow you to meet working engineers and hiring managers.
- Talk to working engineers about the type of projects they do at their company.

Professional Engineering Societies:

- If you are a member of any Student Engineering Society (like IISE), you should list these on your Resume; particularly, if you were an officer.
- If you attended any of the Society's national or regional Conferences, list each of these on your Resume.
- If you are not active with any Professional Engineering Society, you should consider joining as a student.

General Job Search Tips

(continued)

Interviewing for Information:

- Plan to do some informal Interviewing of working engineers and others at companies you are interested in.
- Attend some local events like Engineering Society events, so you will meet working engineers and ISE alumni.
- Utilize your Interviewing results, to help focus your Search.

Career Objective:

- Think carefully about the type of ISE work you would prefer to do at a company or organization.
- If listing a Career Objective on your Resume, be specific in what type of position you are seeking.
- If you are applying for an Internship make sure you state this clearly.

General Job Search Tips

(continued)

Work History:

- For each of your past employers, and any current employer – you should describe on your Resume the products made or services provided at the site you worked at (to put your Work Experience in perspective).
- If you did any Internship jobs in your field, mention these on your Resume (but mark them as Internships).
- If you did a Senior Design Project or any project-related assignments while in college – you should describe these as well (but note that they were student projects).

References:

- You should have 4-5 References written up on a separate Word file, ready to send out to a potential hiring manager upon request, mentioned at the bottom of your Resume.
- Make sure you contact all your References.
- Make sure you talk to your References & Professors about possible job leads and contacts.

General Job Search Tips

(continued)

Practice Interviews:

- Do some Mock Interviews, if these are available on campus, or do some practice Job Interviews with a friend.
- This will let you get familiar with answering typical job-related questions, and in talking about your Resume.

Professional Certification Training & Additional Education:

- For some types of positions, you may need to pursue a Professional Certification. Even if you don't complete it, just taking the class (live or online) may be useful.
- A Master's degree (Engineering or MBA) may help your Job Search. If possible, get some hands-on job experience with your undergraduate degree before pursuing an advanced degree. Many companies will reimburse your fees.

General Job Search Tips

(continued)

Industry and Company Investigations:

- Focus on a few companies that you like, and a few industries that you have some experience in, during your job search.
- When placing your Resume on a company's Jobs website, follow the site's instructions carefully. Look at a variety of job titles that you qualify for.
- Monitor the results of your Job Search:
 - If you are not getting Job Interviews, try a different approach until you have some positive results.
 - If you are getting Job Interviews, but no Job Offers, consider doing some Mock/practice Interviews to better prepare yourself.

Career Fairs & Hiring Events:

- If any companies you are interested in have a local Career Fair or Hiring Event on campus – plan to attend and bring several copies of your Resume.
- Be ready to talk about your Career Objective and your Work History very quickly & concisely.

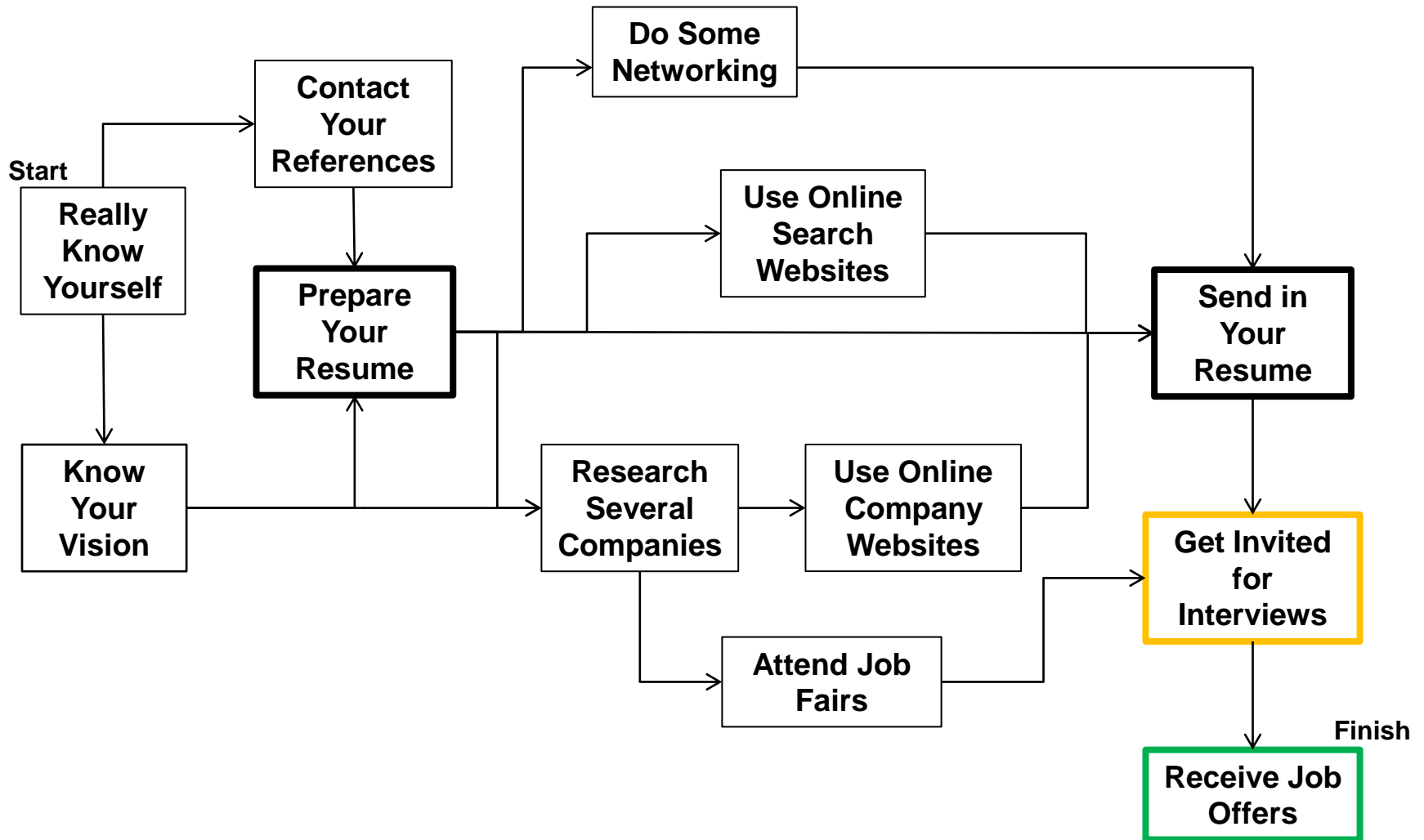
General Job Search Tips

(continued)

Search Jobs Listing websites:

- Utilize the University's Career Center and the Placement Office, for Job Search information.
- Use a good general Jobs Posting website, and check it often for possible job openings in your field.
- Also, *Indeed* is a broad, general, job-search site, that many working engineers and managers use.

Job Search - as a diagram



Sample Student Resume Format

Name (in Initial Caps, Bold, 14 pt.)

Page 1 of 2

Student address and/or Home address
Cell phone and/or Home phone
Student e-mail and/or Home e-mail

EMPLOYMENT

OBJECTIVE:

Not always necessary, but if used – describe the types of jobs that you are most interested in, and maybe how they link to your Intern work experience, or your Independent Study or Senior Design Project, etc.

EDUCATION:

Month & Yr. of planned graduation

- Formal school degree, name of school, program and location of school
- List any school related projects involving outside companies (Sr. Design Project)
- List any Independent Study (with which Professor)
- Work related course summary, certifications, etc. might also be used
- List any honorary academic societies or other academic awards

COMPUTER

KNOWLEDGE:

List of computer software (maybe as multiple columns, maybe organized by type of software, & any code writing skills).

EMPLOYMENT HISTORY:

Company name (most recent)

City, State

Month/Yr. – Month/Yr.

Position title – describe main duties (or let this be the first bullet).

- Briefly describe the size of the facility and main products, etc.
- Briefly describe a project or activity you worked on.
- Utilize key action words like Cross-Functional Team, Project Management approach, Business Forecasting, Process Improvement, etc.
- Have several interesting things to talk about in the interview (maybe bring a written project report or activity summary).
- About 4-6 bullets in total for each position.

Sample Student Resume Format (continued)

Page 2 of 2

Name (repeated on 2nd page)

Other Company name

Location

dates

Position title – describe main duties (or let this be the first bullet).

- Briefly describe the size of the facility and main products, etc.
- Briefly describe a project or activity you worked on.

PROFESSIONAL

ASSOCIATIONS:

List any student professional associations (like IIE) and any officer positions.

List any professional conferences attended or any papers presented.

HOBBIES

& INTERESTS:

Not always necessary, but if used - list a few of your hobbies & interests – to serve as an icebreaker (or help make a connection with the Interviewer).

[References will be furnished upon request.]

If you add the statement above, have 3-4 references already typed up on a separate sheet, ready to send out (by mail or e-mail). Check with all the listed references to get their permission and current e-mail address, company and title. If a reference is working at a different company now - than when you knew them - state how you knew the person and what company they were at when you met them.

Some Key Words to consider using in your Resume

- Benchmarking
- Cost Engineering
- Cost Estimating
- Cost Reduction
- Cross-functional Teams
- Defect Reduction
- Ergonomics & Safety
- Facility Planning
- Implementation Results
- Inventory Control
- Inventory Management
- Material Handling
- Process Improvement
- Product Development
- Production Control
- Production Scheduling
- Project Management
- Quality Control & Inspection
- Root Cause Analysis
- Simulation
- Six Sigma/Lean Manufacturing
- Strategic Planning
- Supplier On-site Visits
- Systems Integration

ISE-related Job Titles

- Industrial Engineer (IE)
- Industrial & Systems Engineer (ISE)
- Systems Engineer (*non-Electrical Systems*)
- Management Engineer (*the title often used in Healthcare Industry*)
- Project Manager (*non-Construction projects*)
- Facility Planner & Facilities Engineer (*non-Maintenance*)
- Manufacturing Engineer/Production Engineer
- Process Improvement Engineer
- Productivity Improvement Specialist
- Methods Engineer
- Quality Engineer
- Ergonomics Engineer
- Safety Engineer
- Lean/Six Sigma Projects Leader or Instructor
- Empowerment Teams Leader
- Supply Chain Manager
- Consultant (*Engineering & Management Consulting*)

ISEs Work in Many Industries

- Aerospace & Airplanes
- Aluminum & Steel
- Banking & Finance
- Cars & Trucks Assembly
- Construction
- Consulting
- Electronics Assembly
- Energy & Utilities
- Entertainment
- Food Production
- Forestry & Logging
- Insurance & Risk
- Materials Testing & Inspection
- Medical & Healthcare
- Military & Dept. of Defense
- Mining & Raw Materials
- Oil & Gas Distribution
- Plastics, Forming & Components Mfg.
- Retail & Wholesale Stores
- Shipbuilding & Repair
- State & Federal Govt. consulting
- Transportation & Logistics
- Warehousing & Distribution

Write Your Resume the Way a Hiring Manager will Read It

- Make sure you fully explain items in your Resume, so you won't confuse or waste time explaining them during a Job Interview.
- Try to anticipate the areas of your Resume that will need some clarification and expand on these in your Resume.
- When you describe your Work History, describe the companies you worked for in enough detail that the Interviewer will understand what the company does and what your job duties were.
- Put the size of the organization you worked at in perspective, so the Interviewer can better understand the types of projects & responsibilities you had.

Write Your Resume the Way a Hiring Manager will Read It

(continued)

- Make it clear when your work was an Internship, and not a permanent job. Also, make sure that School Projects are identified as being done while in college, and not during an Internship.
- Make it clear what types of positions you are applying for, when you will be graduating, and what degree you will be earning. If graduating with an advanced degree (or a double major), make this clear on your Resume.
- When you include any Awards or Honors in your Resume, make sure you describe these in enough detail so the Interviewer will understand the Award or Honor. Then if they ask you a question about it, it's because they are interested, and not because they didn't understand the significance of the item.

Write Your Resume the Way a Hiring Manager will Read It

(continued)

- Look carefully at any potentially confusing or complex items in your Resume. Decide first if you should delete these items. If keeping the items in, add some clarification or try to anticipate the kinds of questions that might be obvious on each item.
- It's important not to waste the Interviewer's time, with items that you could easily clarify in your Resume.
- Mock or Practice Interviews can be very useful at identifying potentially confusing things in your Resume.

Some Reasons Why Resumes are Thrown Out Early

- It's not clear what job you are applying for.
- You should be applying for an Internship, but your Resume looks like you are applying for a permanent job, before you plan to graduate.
- It looks like you are applying for an Internship, when you meant to apply for a permanent job.
- It's too hard to follow where you have worked or what experience you have.
- You've included several self-praise comments that make you look egotistical and maybe a potential problem employee.
- You have a confusing timeline of when you will graduate.
- It looks like you are going directly into Grad school, and will not be available for a job anytime soon.

Some Reasons Why Resumes are Thrown Out Early

(continued)

- You used a strange or small font and it's very hard to read your resume.
- It's very difficult to follow the text used in your Resume (bad grammar, or bad spelling).
- You used an unusual file type (or software).
- You are an International student (non-U.S. citizen), applying for a U.S. Defense job, where U.S. citizenship is required.
- You're applying for a much more senior position, than your current work background suggests you are qualified for.
- You ignored the minimum criteria listed for the position.
- You sent your Resume to the wrong mailing address.
- You're applying for a position that has already been closed (as stated on the company's website).

Some Reasons Why Resumes are Thrown Out Early

(continued)

- Your contact information is incorrect, so you can't receive a reply from the company.
- There were no key words used in your Resume, for the position you were applying for (so an auto-search didn't pick your Resume).

- They liked other Resumes they received, better than yours, when selecting a short list of possible candidates for Job Interviews.

Skills Hiring Companies Look for in ISEs

Ability to apply ISE Fundamentals:

- Production Control
- Inventory Control
- Process Analysis
- Facility Planning
- Material Handling
- Statistical Analysis

Strong grounding in Engineering Fundamentals:

- Basic Design
- Materials Science
- Thermodynamics
- Electrical Theory & Circuits
- Applied Physics
- Machining
- Automation
- Robotics

Skills Hiring Companies Look for in ISEs

(continued)

Communication & Inter-personal skills:

- Success in working with cross-functional teams
- Ability to work well with others
- Ability to communicate ideas through technical writing
- Ability to present ideas to diverse audiences
- Ability to establish a rapport with a variety of people, from shop personnel to senior management.

Project Management skills:

- Ability to develop Objective, Scope, Workplan, and Schedule
- Know how to use Scheduling software
- Lean/Six Sigma analysis skills
- Risk Analysis
- Project/Team Leadership skills

Skills Hiring Companies Look for in ISEs

(continued)

Analytical skills:

- Proficiency in doing Investigations and Root Cause Analysis
- Internet Research skills
- Methods Improvement skills
- Standard Data development & conducting Time Studies
- Cost Analysis, Return on Investment, and Cost Estimating skills for analyzing alternative solutions

Computing skills:

- MS Office: Outlook, Word, Excel, Access, PowerPoint
- MS Project
- Statistical software
- Electronic layout/drafting skills, like AutoCAD
- Simulation software & electronic comparison analysis

Sample Job Interview Questions

Questions about You:

Tell me about yourself.

What are your greatest strengths / weaknesses?

What leadership roles have you had?

Questions about Your Education:

Describe your most rewarding college experience.

What led you to choose Industrial & Systems Engineering?

Which areas of study were you most interested in?

Questions about Your Work Experience:

Which companies have you worked for?

What 2 or 3 accomplishments have given you the most satisfaction?

Describe a Project where you were able to get some things implemented.

Sample Job Interview Questions

(continued)

Questions about Your Work Preferences & Values:

Do you prefer to work by yourself, or with others?

What factors are the most important for you in a job?

What type of managers have you enjoyed working for the most?

Questions about This Position / This Company:

Why are you interested in this company / this position?

What can you contribute to this job / position?

How will you evaluate whether this job is a fit for you?

Questions about Your Future:

What are your future career plans?

How does this job fit into your future plans?

Do you plan to attend Graduate School soon?

Sample Job Interview Questions

(continued)

Behavioral Questions:

Discuss a major conflict, and how you handled it?

What motivates you to do your best work?

Describe a situation where you influenced someone or a group.

A Case Study scenario:

How would you approach a case study given to you by the hiring manager, during a Job Interview?

- It will be similar to projects that they currently work on at their company.
- They are looking to see if you will be able to start a similar project for them.
- They are testing your ISE Project Management skills.

“Mock” or Practice Interviews

- It is helpful to prepare for actual Industry Job Interviews, by doing some “Mock” or Practice Interviews.
- These can be done formally, at a Student IISE Chapter event.
- Or they can be done informally, with a friend or room-mate.
- Bring along at least 2 copies, printed single-sided of your current Resume (for each Interview), and try to act as if it is a real Job Interview.
- Listen carefully to any feedback you receive on your Resume, or feedback on your responses to their questions.
- Prepare a few questions that you would like to have answered, either about the company or the job being discussed.
- Mock Interviews are usually not for current job openings, but will represent the type of ISE-related jobs their Company sometimes offers.

“Mock” or Practice Interviews

(continued)

- The first part of the session is conducted similar to a real Job Interview.
- The second part of the session will be to provide some feedback on your Resume and some discussion of your responses to their questions.
- One of the advantages of doing several Mock or Practice Interviews is to become comfortable talking about your Resume and your background/work history, and to practice some responses to typical Job Interview questions.

Transmittal E-mails

- Unless doing a U.S. Postal mailing (letter, envelope & stamp), most old-style cover letters have given way to e-mail notes when sending an attached resume or application form, electronically.
- If applying to a specific job posting, start by specifying the exact position title, the date the position was originally posted, the source of the posting (company website, newspaper ad, etc.) and any job number/code (if applicable).
- Keep the e-mail note short and to the point, but tell them why you are responding; and maybe point out some key items in your background that are relevant to the position. Check your spelling & grammar.
- Make sure the subject line of your note is complete & relevant to the overall content of the note.

Transmittal E-mails

(continued)

- If you also placed your resume on their company website, let them know what position you applied for & when you responded (just the most recent position you applied for – don't list multiple jobs).
- Ask for the next step in the process, or come up with a proactive way for you to help the process along (e.g. Volunteer to be in their area, if interviewing for an out of town job).

Transmittal E-mails

Example Transmittal Note

To: John Smith, IE Manager - XYZ Company
From: Bill Student
Date: 12/4/20XX

Subject: Resume for Job #A113 IE - Special Projects position

Attached is my current resume for consideration for the Industrial Engineer - Special Projects position in Denver with your company - Job #A113. I saw this position posted on your company's website on Dec. 2nd.

As you can see from my attached resume, I have completed several Process Improvement projects and have some Lean/Six Sigma training. I applied online for this position on Dec. 3rd using the company's website.

I will be in the Denver area during the week of Dec. 14th - 18th and would be very interested in meeting with you at your convenience, to discuss this position or other similar positions with your company.

Preparing a List of References

- You should have 4-5 References written up as a separate document, ready to send out to a potential hiring manager, upon request.
- Make sure you have contacted all References you list, and get an agreement from each that they will speak very positively of you, where possible.
- List their current work information (title, company, e-mail address, & phone).
- List when you knew them & which company they are a reference for.
- If a reference is working at a different company now than when you knew them, state what company they were at when you knew them.
- Add this phrase to the bottom of your Resume:
[References will be furnished upon request.]

Sample References Format

References for [*your name*] **Prepared on:** [*date last updated*]

1st Company (or Organization)

[*Month/Years this Reference covers (MM/Yr. - MM/Yr.)*]

1st Reference's Name & Title

Relation to you when you worked there (*your boss, or a co-worker, etc.*)

Location (city & state) of the office or work site

Reference's current e-mail address & cell phone
(or work phone)

Company or Organization they work for now, if different from when you originally knew them

2nd Reference's Name & information (*like above*)
(*from the same company or organization*)

2nd Company (or Organization)

Next Reference's Name & information (*like above*)

3rd Company (or Organization)

Next Reference's Name & information (*like above*)

What to Investigate Before Accepting a Job Offer

- Job interviews can also be an opportunity to learn about the company & benefits.
- Much of this information may come from the company website (which you can investigate prior to your Job Interview) or from Human Resources, but some information may need to come from the Hiring Manager.
- Before taking any job, investigate the following topics:
 - Relocation cost reimbursement
 - Cost of living for the job location
 - Commute time for the location
 - Medical coverage
 - Sick leave policy
 - Vacation policies and time to accrue vacation
 - Flex-work and work from home policies
 - Travel commitment for the job

What to Investigate Before Accepting a Job Offer

(continued)

- Before taking any job, investigate the following topics:
(continued)
 - Any items the job offer may be contingent on (such as a new contract for the company)
 - Company financial contribution toward advanced degrees
 - Company paid training, certifications, and engineering society membership dues & conferences
 - Company investment plans
 - Retirement benefits
- When weighing your options, look beyond just the annual salary and try to compare total compensation and the work environment.

Some Advice For Your First Job (after graduation)

- Read & understand your current job description.
- Work towards the next level's job skills.
- Get as much experience and knowledge as you can from each position you hold.
- Learn the company's products & the product build-sequence (or main function of the site you work at).
- Develop a "*network*" of useful company contacts.
- Take advantage of the internal training that your company offers (much of it online).
- Stay current on all mandatory training for your group (or job description).

Some Advice For Your First Job

(continued)

- Pay close attention in staff meetings, for new opportunities & take careful notes.
- Look for an opportunity that you are uniquely qualified for (such as helping build a departmental website, or helping others set up a simulation).
- Develop strong Project Management & Project Scheduling skills (including their Project software).
- Offer to help others with their projects.
- Volunteer for a new assignment each year.
- Leave time during each day to Think and bring something useful to all your work & projects.

Some Advice For Your First Job

(continued)

- Bring some of your University textbooks to work, to use as Technical References.
- Prepare well for Performance Reviews (if these are being used).
- Let your manager know of your outside volunteer activities (like Engineers Week, IISE Chapter, etc.).
- Get plenty of sleep and pace yourself for a full 40-45 hour work week.
- Be on time each day for work, and all meetings.
- Listen much more than you talk, particularly early during a new project.

Some Advice For Your First Job

(continued)

- Be very sparing in giving your opinion, best to be asked first.
- Learn what your boss' "*hot buttons*" are, so you can avoid them (and not tick them off).
- Develop a good attitude about your work and your job.
- Try to be a Team Player and get along with everyone (even if you don't really like someone).
- Find a few Mentors and follow their advice, but only if it works for you.
- Practice life-time learning, to stay current in your field (you can become outdated in less than 5 yrs.).

Some Advice For Your First Job

(continued)

- Buy a few job-related textbooks each year.
- Join IISE as a professional member & volunteer.
- Give back to your University & the ISE Department; your degree is only as good as the school's current reputation.
- Later in your Career, be a Mentor (start early, as a Mentor to University & high school students).

Some Summary Comments

- ✓ Understand the main skills hiring managers look for.
- ✓ Use a good format when preparing your Resume.
- ✓ Utilize some key words in your Resume.
- ✓ Don't give hiring managers a reason to initially discard your Resume.
- ✓ Utilize your Professional Network & your References.
- ✓ Look at a variety of Industries & be aware of the many ISE-related job titles.
- ✓ Prepare for common Job Interview questions & do some Mock or Practice Interviews.

Some Summary Comments

(continued)

- ✓ Use a good transmittal email note when sending in your Resume electronically.
- ✓ Work your Job Search to a successful conclusion.
- ✓ Look at all benefits, not just salary, before accepting a job offer.
- ✓ Try to follow “*Some Advice For Your First Job*”.