How To Get a Job in the Computer Industry

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Agenda

• My bias
• Types of jobs
• Where to look for jobs
• How to read an ad (if you have to)
• The process of hiring
• Resumes
• Cover letters
• Applying for the job
• Interviews
My bias

- over 18 years in the “computer industry”
- most of that time doing low-level system software development
  - OS, device drivers, compilers, networking software, embedded software, etc.
- also managed groups that did the above
- also wrote some “higher-level” application code and managed folks who did same...
- so apply the appropriate amount of salt...
# Types of Jobs

<table>
<thead>
<tr>
<th>type of job</th>
<th>difficulty</th>
<th>compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>'IT', system administrator, network administrator, tech support</td>
<td>Easy to middling (but easy to get pigeon-holed)</td>
<td>OK</td>
</tr>
<tr>
<td>also 'IT', high-level applications, primarily business, payroll, inventory, capital planning, oh, yeah - most web development</td>
<td>Easy to middling (but you need domain expertise)</td>
<td>OK to Better</td>
</tr>
<tr>
<td>generic applications, Word, Excel, DB2, Oracle, mobile apps</td>
<td>Middling Hard</td>
<td>A lot better</td>
</tr>
<tr>
<td>'system level' software, OS, tools, device drivers, video games! communications s/w, real-time software, embedded software</td>
<td>Difficult (need lots of CS &amp; domain expertise)</td>
<td>Best these folks are the hardest to find</td>
</tr>
</tbody>
</table>
Where to look for jobs

• **Network first!!**
  - friends, relatives, professors, etc.

• **Career & pre-professional center**
  - companies that come on campus
  - career fairs
where to look for jobs - 2

• the web
  - monster, geekfinder, dice
  - also try
    • http://www.job-hunt.org/findingjobs.shtml

• ads
  - CACM, CRA, ComputerWorld
  - other trade publications
  - newspapers

• headhunters
How to read an ad (if you have to)

- Horizon Hobby is looking for an **experienced developer** to join our team of developers to assist in **enhancements of our consumer websites** as well as our B2B websites. Proven experience in professional development using ASP along with a thorough knowledge of HTML, SQL, VBScript and JavaScript required. **Also requires a minimum of 2 to 3 yrs of solid exp w/commercial web site development using ASP.** Ideal candidates will also be experienced with ASP.NET. Salary will be commensurate with experience. Apply or inquire to: **Horizon Hobby, Inc. 4105 Fieldstone Rd Champaign, IL 61822 apply@horizonhobby.com EOE**

*(Champaign News-Gazette, January 11, 2004)*
Human Kinetics, the information leader in sports, fitness, and exercise science, is seeking a creative and experienced client-server and web applications programmer for our Applications Development team. Projects include the creation and maintenance of educational applications, online publishing projects, and more. Qualifications: knowledge of database architecture & design and experience with Microsoft SQL Server. Prefer proven experience with VB.NET and Cold Fusion but may consider applicants with backgrounds in other languages. Competitive salary and excellent benefits package including 401(k) with profit sharing & match, on-site fitness facility, and subsidized cafeteria. Send cover letter and resume to Human Resources Human Kinetics PO Box 5076 Champaign, IL 61825-5076 e-mail LISAS@hkusa.com or fax 217-351-2674. For full job descriptions, visit www.HumanKinetics.com/careers EOE

(Champaign News-Gazette January 4, 2004)
A real entry level position

Requisition # G1619328
Job Title Software Engineer - Entry Level 5/04 grads
Post Date 1/14/2004
Division Boulder
Job Area Engineering - Software
Location Colorado - Boulder
Role Entry level position, requiring less than 5 years experience. A hands-on embedded software design and development position programming in C for telecommunication product development. Work assignments require theoretical and practical knowledge typically acquired through a combination of experience and education.
Skills/Experience Strong software development skills, C programming and good problem solving skills required.
Additional Skills Knowledge in real-time microprocessor-based embedded programming and embedded real-time operating systems is a plus.
Education Requirements B.S. in CS, EE, ECE or equivalent is required.
Positions Multiple Openings

*Qualcomm, Inc., posted on job-hunt.com on January 19, 2004*
A Head-hunter - trolling for bodies

Rothman and Associates

**Location:** US-OH-Cleveland

**Pay:** 48,000.00 - 62,000.00 USD /year Medical coverage and retirement plan

**Status:** Full Time, Employee

**Job Category:** Computers, Software

**Education Level:** Bachelor's Degree

**Job Description** IT consulting firm specializing in custom software application development is seeking an applicant with the following experience: **A minimum of 2 years experience in the following...** 3 tiered application development Visual Basic 6 Visual Studio 6 Visual Interdev and experience in using their debugging tools SQL Server with strong SQL Language skills including experience with stored procedures, triggers, user defined functions and security. COM+ Active Server Pages HTML A minimum of one years experience in the following... VB.NET ASP.NET Visual Studio.NET XML

The following additional skills are considered a plus Experience in writing global ready web based solutions DataDynamics Active Reports Microsoft Certifications Strong communication skills are required as our developers often interact with clients.

*(Monster.com posted January 10, 2004)*
Jr. Web Services Developer

Primary Role Title: Application Developer

Date Listed: 13-Jan-2004

Work Location: Monterey • California • USA

Special Considerations: Security Clearance Required. Relocation Assistance Not Available.

Essential Functions: Opportunity for a recent graduate with two to three years of experience with Web Services -

Java Application development. Experience with Java (Applets, Servlets, Swing, ANT, EJBs, JNDI, J2EE, JSPs, APIs), C++, C, XML, LDAP, PostgreSQL, JDBC, Perl is required to be successful to fulfill the requirements for the various projects utilizing meteorological data. Experienced with Linux Operating systems (Windows, Unix), scripting languages (shell, korn, bourne, vi, JavaScript). Experienced with PostgreSQL and Informix Databases, Web Services and Web Services Security tools (SOAP, PKI, LDAP, XML/SAML). Experienced with Full Life Cycle of software development (design/development software applications, requirements preparation, testing, debugging, Load/Performance testing, packaging with RPM and releasing completed software product. Must be experienced with CVS (source control repositories), Tomcat/Apache and related web servers, JBoss. Should have an understanding of a "good build" / release engineering process and be familiar with GIS or other layered mapping applications. Knowledge of Scheme/Lisp and Fortran is helpful.

Essential Knowledge: Must have experience developing software applications in Linux environments using Java (Servlets, Applets); Tomcat/Apache Application Servers; PostgreSQL, LDAP (iPlanet) Database & Directory servers.

Essential Education: Must have a Bachelor's degree in Computer Science or related field.


Organizational "Fit" Considerations: Applicant must possess a Security Clearance at the "Secret" level or be eligible to obtain the required clearance. Applicant selected will be subject to a government security investigation and must meet eligibility requirements for access to Classified information.

Keywords: Applet & Servlet Interface, APPLICATIONS SYSTEMS ANALYST/PROGRAMMER, CGI, CVS, C++, FORTRAN, HTML, HTTP, INFORMIX, J2EE, JAVA, Java Beans, Java Swing, JavaScript, JDBC/ODBC, JSP, LDAP, LIFE CYCLE, Linux Operating Systems, LISP/Scheme, METEOROLOGICAL SYSTEMS, PERL, PKI, Portal, PostgreSQL, Servlets, SOAP, SOFTWARE DEVELOPMENT, UNIX, WEB BASED GUI DEVELOPMENT, Web Portal Development, Web Services, XML

CSC is an Equal Opportunity Employer.
The process of hiring - from the company’s side

• Who do companies hire?
• What’s the process?
Who do they hire? And where do they get them?

• Entry level positions
  - college visits
  - career fairs
  - internship programs/summer jobs
  - word of mouth

• Experienced people
  - internet
  - ads
  - networking
  - consultants
What’s the process?

• Reviewing resumes
• Phone screens
• on-site interviews
• the pit
Resumes

• tailor your resume to the job
  – highlight your strengths
  – re-arrange the resume depending on the job

• “only one page” is a myth

• leave something for the interview

• don’t be afraid to brag

• spell check!
  – and grammar check!

• ignore high school
Cover Letters

- tailor your cover letter to the job
- don’t send out many ‘cold’ letters
- always highlight your strengths
- make each cover letter an “original”
- spell check!
  - and grammar check!
Applying for the job

- **if it is at all possible avoid HR like the plague!!!**
  - except for the College Relations person
- send your letter & resume to the hiring manager.
- do your homework
  - that’s what the web is for, after all
- follow up with a phone call (just one)
  -
Applying for the Job

• Be careful of applying via email
  - despite monster.com & geekfinder.com & www.dice.com
  - it’s easier to forget an email than it is to forget something on your desk
    • but, I may just be an old fogey about this one.
  - sometimes you can’t avoid it (e.g. www.motorolacareers.com)
Interviews

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Interviews - General Guidelines

• Practice interviews

• Be early

• Dress appropriately
Interviews - General Guidelines

• **do your homework**
  - investigate the company
  - investigate their products
  - investigate the hiring manager
  - investigate their competition
  - investigate the community

• **shut up and listen**
  - they’re trying to sell you on the company as much as you’re trying to sell them on you.

• **make sure your answers match your resume**
Interviews - types of interviews

- two types of interviews in the computer biz
  - technical - done by one or more of the line developers. Tests your ability to think on your feet, and confirms things you’ve said you’ve done in your resume and cover letter.
  
  - managerial - done by a manager. Assesses your likelihood of fitting into the team and being a productive team member. (Yes, this is just as important as your technical skills.)
Interviews - types of interviews

- ask questions
  - how are projects organized?
  - how often will I change projects?
  - how many hours are you expected to work each week?
  - overtime policies?
  - how are projects assigned?
  - what kinds of training are available?
  - are your salaries adjusted for cost of living in a geographic area?
Interviews - The 'S' Question

• “So, what kind of salary are you looking for?”
  • DANGER, DANGER

• fact: most large companies have policies that govern the salary range for all new hires.
  - so for them it doesn’t really matter what you say.

• fact: small companies don’t have such policies, so there your answer can make a real difference.
  - Answer: do your homework & NEVER GIVE THEM A SINGLE NUMBER.
  - ALWAYS GIVE THEM A RANGE.
  - and make it a range you are comfortable with.
Interviews - Benefits, etc.

• now you can talk to HR (about benefits)

• Follow-up
  - send them a thank-you note
    • email is usually OK
    • handwritten makes more of an impact (but see old fogey comment above)
Once you get an offer…

• Congratulations!

• make sure you get it in writing!

• Negotiate
  – lots of stuff is negotiable
    • salary
    • relocation
    • starting date
  – stuff not usually negotiable (at least not at entry-level)
    • retirement benefits
    • healthcare benefits
    • vacation (alas, U.S. companies generally have really sucky vacation policies)
Good Luck!