No Illusions

Source: HTTP://XKCD.COM/643/
Lesson of the Steel Mill

Source: Pennsylvania State Archives
South Works, Carnegie Steel Company, South Sharon, PA, circa 1910
“You Are FIRED.”
Getting Advice in the 70s (one word, ... “computers”)

• Learn a skill/trade

• Get into computers (repair)

• Go to college

• Become a professional, get a “career”
Carnegie Mellon University (CMU)

- “The Professional Choice” (circa 1980)
- The education was fierce!
- Still remembered the lesson of the steel mill

Source: © Ralf Brown, March 13, 2009
1984: Very Hirable (Thank You, CMU!)

- Interviews
- Follow-up site visits
- Summer job at IBM, Research Triangle Park
- Scholarship to UC Santa Barbara
Hiring surge brings recruiters to Bay Area campus job fairs

By Lisa M. Krieger

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Posted: 04/20/2011 01:36:07 PM PDT

After years of gloom, college students are flocking to campus job fairs this month in what is shaping up to be the best job hunting season since the Class of 2008.

Universities all over the Bay Area report an increase in the number of recruiters seeking to fill entry-level jobs and internships -- brightening prospects for students whose entire adult lives have been clouded by the Great Recession.

As commencement approaches, 148 recruiters are visiting UC Berkeley this week at a job fair so big that it was turned into a two-day event -- for the first time since 2008. More than 1,500 students are expected to attend.
Good new-graduates from good engineering schools are typically “Very Hirable”
By Hiawatha Bray
Globe Staff / April 19, 2011

Joe Ristaino just did something that would have been unimaginable a year or two ago: He turned down a job offer.

In August, Ristaino, 21, will graduate from Boston’s Wentworth Institute of Technology with what’s become a golden key to a high-paying starter job: a bachelor’s degree in computer networking.
Why “Very Hirable?”

• You have up-to-date skills

• You are a good value

• You have been “recommended” (GPA) by someone they trust (your university)

• You have demonstrated results (graduation)

• They can find you
What’s After “Very Hirable?”

• Very hirable again, 3-7 years out

• Industry experience
  – Results
  – Contacts
  – Know-how

• Skills: mostly up-to-date

• You are still a good value
  – But, you are competing with the WORLD

• Harder to find
The Truth

- Nobody owes you a job
- What you love to do must be relevant to those who will pay for it
The Unspoken Universal Business Plan

Time

Revenue, Profit
Realities of the (bachelor’s) Engineer’s “Business Plan”

Your College Education’s Shelf Life

• A lifetime?

• About 10 years?

When is “mid-career?”
A Recent Job Posting on the Web

Location: San Diego, CA
Job Type: Full-Time/Regular
Level of Education: BA/BS
Salary: Negotiable
Job Level: Mid Career (2+ years of experience)
Date Updated: 06-23-2009
Number Of Openings: 1
Change is Accelerating

• Experienced engineers must compete with new grads and outsourcing today

• The new grads and lower-cost labor of today will face similar competition in the coming years

• Only FASTER!
The Warning Sign: Look to the Derivatives

• College: Rate-of-change of knowledge is extremely high

• Typical employee
  – Rate-of-change of knowledge decreases
  – Rate-of-change of experience is high
    • This decreases, too
  – Rate-of-change of productivity (efficiency) increases
    • But, it can level-off

• If the rate-of-change of knowledge, experience, efficiency goes down
  – Future value to the company, relative to newer-hires, goes down
5 Keys to Remaining Hirable for Life

• Continue to rapidly acquire new knowledge

• Continue to gain new experience

• Demonstrate your capabilities and share them

• Be easy to find

• Remain a good value
Hirable to Whom?

- A different group within your company
- Another company
- Another industry
- A venture capitalist (to invest in your new business idea)
- Your same group – would they re-hire you?
- Yourself
5 Actions to Take to Remain Hirable for Life

• Be really good at what you do
• Focus on the customer
• Network effectively
• Make people want to find you
• Be financially able to wait for the opportunity of your choosing
Be Really Good at What You Do

• Continue your formal education

• First Job choice
  – Variety, training, mentor, resources, reputation

• Maintain or increase the rate-of-change of your knowledge and experience
  – Become an Expert in your field
    • Experts can explain things clearly (e.g., to a bright high school student)
    • Experts don’t know EVERYTHING!
    • Experts know the “4 corners” of a field
    • Experts know the right questions to ask
  – Expand what you consider to be “your field”
    • Narrow core expertise, but broad application
Daniel Pink: The 3 A’s

• Abundance
  – Competing with free

• Asia and Automation
  – Can what you do be reduced to a sequence of steps?
Be Really Good at What You Do

• Actions You Can Take Now
  – Ask better questions
  – Identify and analyze everyday experts around you
  – (Grad school) Write up one homework problem each week as if it were for your best customer
How Can You be Sure You’re an Expert?

• Explain such that others can explain

• Know the next step (specific action) to take
Focus on the Customer

• Internal Customer
  – Boss, co-workers, other departments

• External Customer
  – The one who pays money so you can keep working
Customer Realities

• Do what they ask for, but ALSO do what you believe they need

• In the Good Ol’ Days
  – We were asked, “What have you done for me lately?”
  – Now it is, “What will you do for me next?”
Understand the Customer’s Point-of-View

• **Actions You Can Take Now**
  - You are a customer every day
    • How could the seller have made the process, service, or product better for you?
    • Why do you think they aren’t doing it?
    • Over time, pick a few owners/supervisors to ask and compare your reasons with theirs
  
  - Pick a Dilbert comic strip
    • Find some GOOD reasons for the pointy-haired boss to take whatever seemingly ridiculous action he does
    • Discuss this with your friends and colleagues
Set a Reminder: Customer

• 6 months from today
  – See handout

• Customer
  – Who is it?
  – What have you done that they would pay for again?
  
  – Derivative: How will you increase the value you provide?
Networking

“Network, Network, Network!”

Network Constantly.”

“Network Everywhere.”

WRONG!

Be the laser pointer, not the torch of the angry villager
How to Network Selectively

• Seek out people in whom you have a **genuine** interest
  – Fake sincerity is obvious and rude
  – Find people who already do what you want to do next
  – Teach your mentor
  – Be a mentor

• Make connections **for** others

• **Specific Questions:** Ask and Answer

• **Participate** in technical conferences and industry events
Network Selectively

• **Actions You Can Take Now**
  – Know your classmates
    • What do they want to do? What are they good at?
    • Stay in touch!
  – Expand your circle of friends
    • Include new people in your conversations
    • Go to events at other schools/groups/organizations
    • Ice breaker: Talk to them about this presentation
  – Establish contact with me
    • Tell me what connected most with you in this talk and why
    • Ask for specific advice (not resume critique, reference, or job openings)
    • Let me know how it turns out

Set a Reminder: Networking

• 12 months from today
  – See handout

• Your Network
  – Who have you helped for free?
  – Who has made the biggest impact on you?
  – Have you joined your alumni association?
  – Have you joined the IEEE (or other technical organization)?

  – Derivative: How can you increase the number of “big impact” contacts?
Make People WANT to Find YOU

• Offer value for free

• Provide clear, concise explanations that are useful and actionable

• Publish in refereed journals and trade publications
Make People WANT to Find YOU

• **Actions You Can Take Now**
  
  – Be easy to find (safely)
    • Start to build your PROFESSIONAL on-line presence
  
  – Write detailed, clear, reproducible worked examples
    • Can bright high school student follow them?
    • Post them (and provide PDF downloads)
    • Translate them into every language you speak
    • Offer MP3s of them
    • Record them for YouTube, etc.
  
  – Google yourself this week
    • In 1 year, compare the results from a new search
    • Put reminder for this in your calendar
In the mid-1980s ...

My southern California financial advisor looked something like this

http://chadcottle.files.wordpress.com/2008/08/whitesnake.jpg
Financial Flexibility

Engineering Margin
Achieve Financial Flexibility

• Live on less than you earn
  – Keep your monthly fixed-expenses low

• Avoid “bad” debt

• Spend effectively – enjoy your money
  – Buy “luxuries” out of money you have saved for the purpose
  – A bargain is not a bargain if you don’t LOVE it

• Prioritize learning how to put your money to work

• Consider investing in yourself (wisely) as one of your investment options

• It can take months (~1 month/$10,000 of yearly salary) to get a new job

• A long-term goal is not to be retired, but to be self-funded!
Achieve Financial Flexibility

- **Actions You Can Take Now**
  - Learn about personal/business finance at your university/job
  - Write a personal-finance simulation/model (share it!)
  - Goal for the next year
    - Build one month’s cash reserve of your typical expenses
    - Start with one day’s worth this week!
  - Don’t get into credit card debt!
- When you get your first full-time job, continue to live like a student for several months
Fitness is Part of Financial Flexibility

• Build up a reserve of healthy living
• The fixed costs you don’t incur!
  – Spend less on medical bills
  – Spend less on long-term care
  – Build a reserve of mental acuity
Set a Reminder: Financial

• 24 months from today
  – See handout

• Financial flexibility
  – Are you improving your health and fitness?
  – Are you able to live on 50% of your after-tax income?
  – Derivative: How does the increase in your expenses over the last 12 months compare to your increase in income?
“Can this Work for Me?”

- It is a process that takes time and thought
- A mentor helps a lot
- It becomes a way of life
- Add the reminders to your calendar
2 Hirable-for-Life Principles for Your First “Real” Job

• Be able to answer this at any time
  – What are you doing, and why?
  – (Why is it worth paying you to do it?)

• Always know what is the next specific action to take on each project
  – If you had that information or result, what action would you take next?
What is YOUR Steel Mill?

FEAR NOT!

Source: HTTP://WWW.HUDSONVALLEYRUINS.ORG/YASINSAC/ANON/STEEL03.JPG

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Listen to Yourself, and Take Action

• I saw the end of an era
• What are you seeing?
• Act on it, and be ready to change course
• Bounce your ideas off me
Could Any of These Be the Next Steel Industry?

- Video games?
- The Internet?
- Google?
- Computers?
- Oil?
- Credit Cards?
- Poverty?
- Disease?
- Natural Disasters?
- ...?
You will lead trends, not just follow them.

In instead of driving all this way, we could've just taken our summer pictures and messed with the "hue" slider in Photoshop.

Hush.

Source: [HTTP://XKCD.COM/648/](http://xkcd.com/648/)
Life is Long, Time is Short

After thousands of years, ...

Wright brothers’ first flight
  December 17, 1903
Man landing on moon
  July 20, 1969

~66 years from first flight to landing on the moon
  (look to the derivative!)
Thank You!

• Your future is bright!
• Enjoy your life and your work
• Economic cycles come and go
• As we say in Texas, ...

Dig your well before you’re thirsty

• Slides of the original talk and video excerpts
  – www.HirableForLife.com