

Job Search Essentials for Graduate Students

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ENGINEERING CAREER SERVICES


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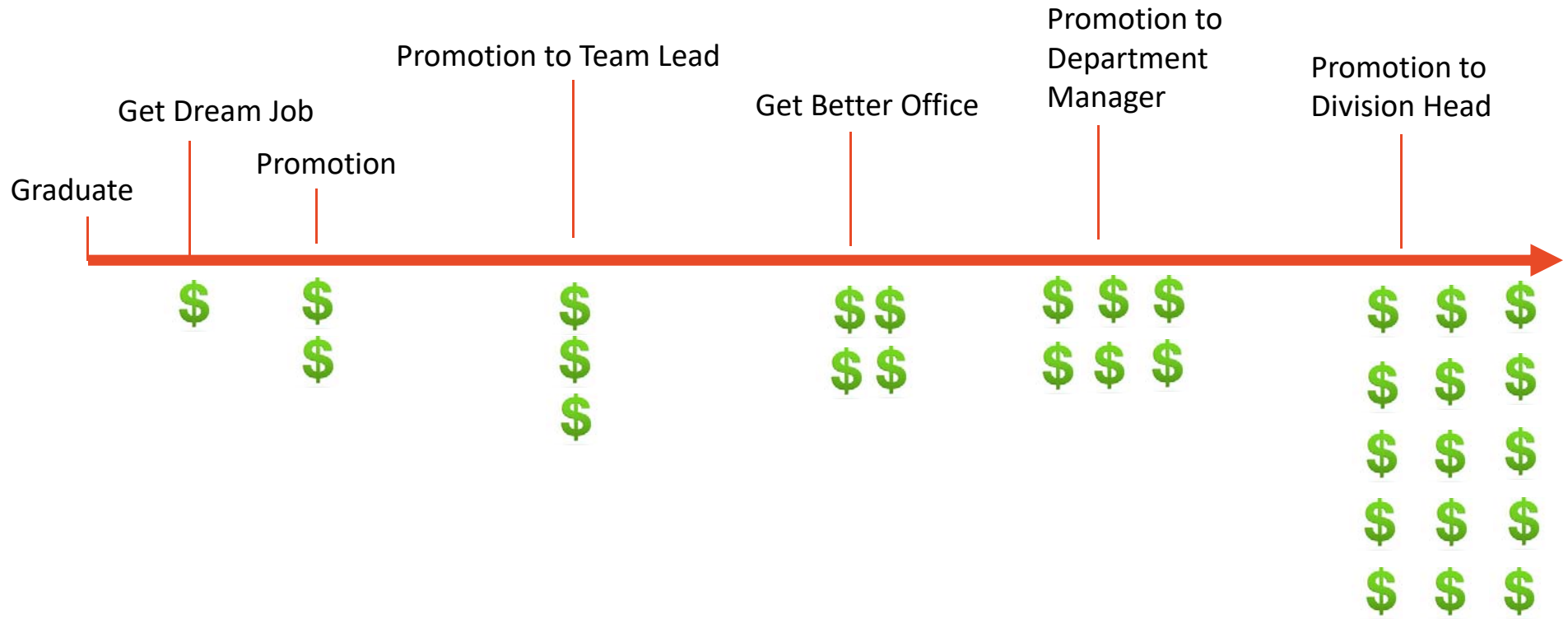
Today's Goals

1. Learn about the ECS Resources available to you
2. Learn to adapt job application materials based on each opportunity
3. Learn job search strategies

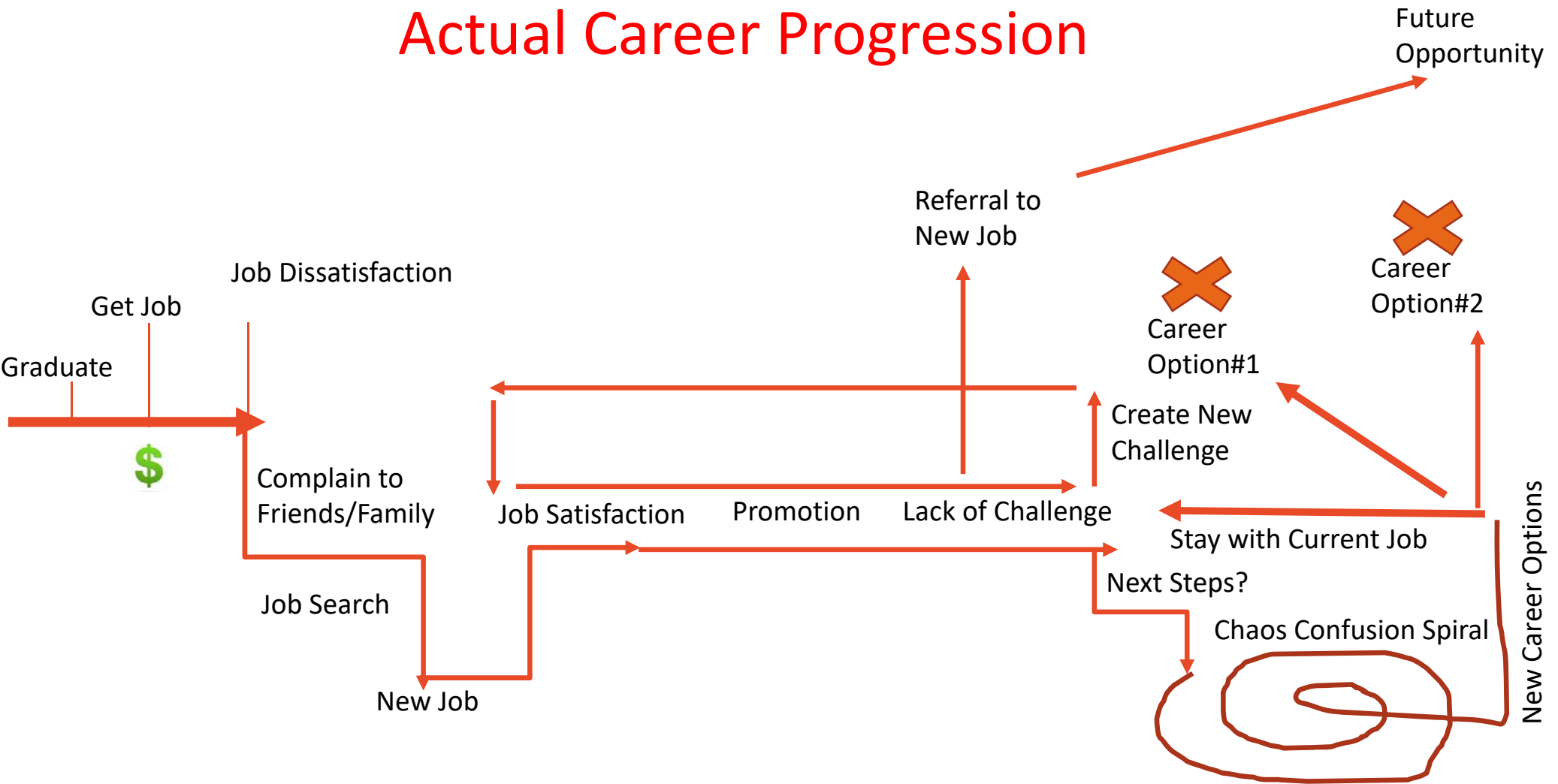
Start your search with
exploration



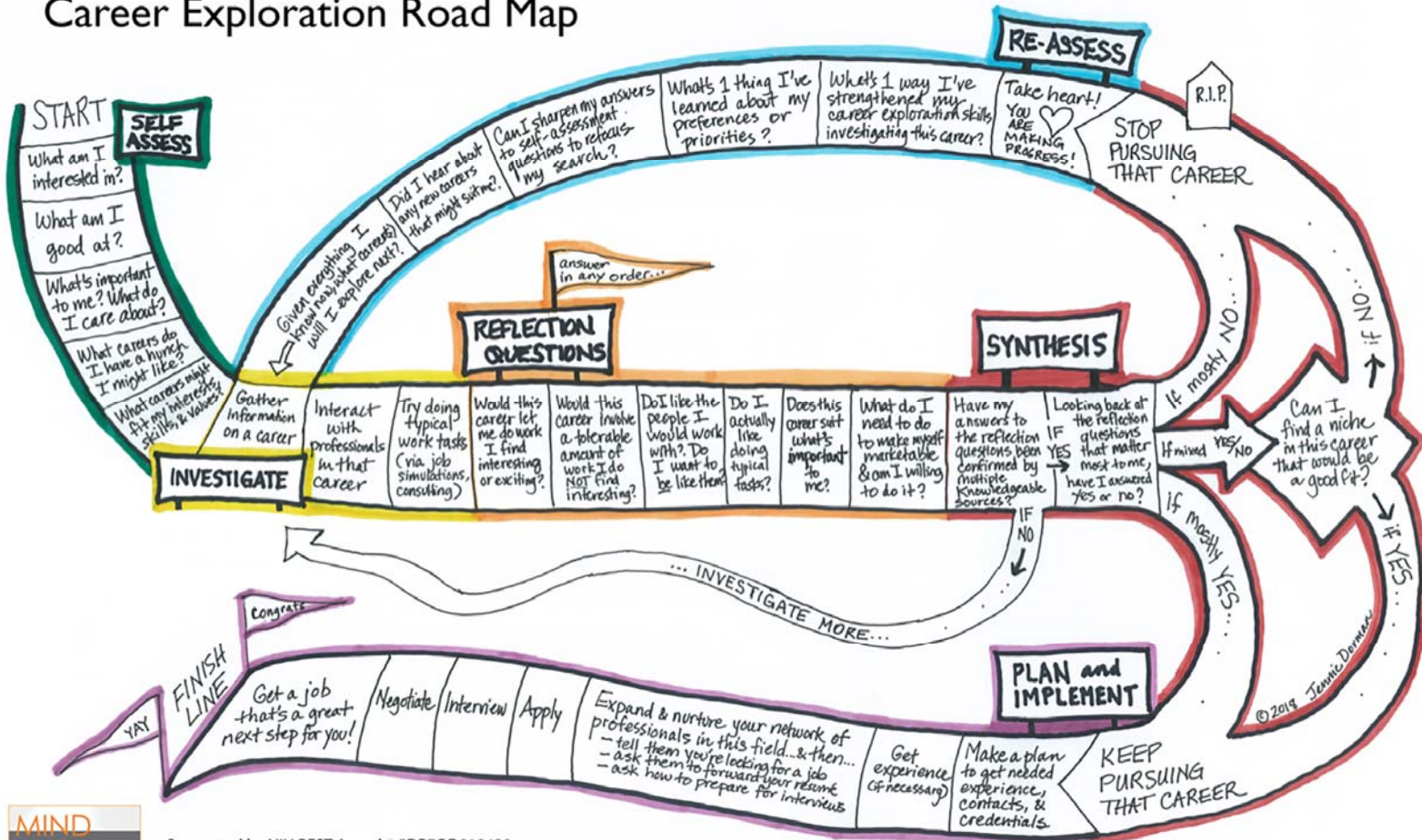
Ideal Career Progression



Actual Career Progression



Career Exploration Road Map



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Key Tools for Exploration

1. Informational Interviews/Networking
2. Information Sessions
3. Reflection
4. Vault.com
 - I. Career Guides
 - II. Career Q&A
 - III. A day in the life

Vault.com Career Guides

Radio Frequency Identification Device Specialists

Quick Facts

| | |
|----------------------------------|--|
| Alternate Title(s) | RFID Specialists |
| Duties | Design, test, and install radio frequency identification device systems to track products and shipments; train users in the details of RFID systems operations |
| Salary Range | \$64,030 to \$102,180 to \$115,680+ |
| Work Environment | Primarily Indoors |
| Best Geographic Locations | Opportunities exist throughout the country, with the highest levels of employment in California, Texas, Colorado, Arizona, and Virginia. |
| Minimum Education Level | <ul style="list-style-type: none">• Bachelor's Degree |

History

Radio frequency identification technology was originally developed for war efforts. It has roots in World War II, when German pilots discovered that when they rolled their planes while en route back to their base, it changed the radar signal and alerted their ground radar crew that these were German aircraft. This is considered a passive radio frequency identification system. At the same time the British developed what was called an active identity friend or foe (IFF) system, with contributions by Scottish physicist Sir Robert Alexander Watson-Watt. They put a transmitter on British planes and when the transmitter received signals from ground radar stations, it sent a signal back so that the ground crew knew it was a friendly aircraft.

Radio frequency identification device systems have a similar concept to that of the IFF system. With a passive system, a transponder receives a signal and reflects the signal back to the transponder. With an active system, the transponder responds by broadcasting a signal. RFID technology advanced in the 1950s and 1960s, and companies started to create RFID systems for commercial purposes, such as for systems to prevent theft. In the 1970s, the RFID electronic tags started to be used on packaging. Many patents were issued for RFID systems to track a variety of things, from nuclear materials to cows.

Employment Prospects

Employers

Radio frequency identification device specialists work for companies that track goods, shipments, and other objects. They are employed by companies that are involved in telecommunications, semiconductor and other electronic component manufacturing; architectural, engineering, and related services; federal agencies; and other types of manufacturing. Retail trade, transportation and warehousing, and construction industries also employ RFID specialists. Approximately 135,000 electronics engineers, including RFID specialists, are employed in the United States.

Starting Out

RFID specialists start in entry-level positions and receive on-the-job training. Many get their start through internships while they are in college. They may receive job offers upon graduation. Ask your school's career services office for help with finding internship and job listings. RFID specialists also find jobs through professional associations and by searching for jobs posted on industry publications like *RFID Journal* and on LinkedIn, SimplyHired, and other similar Web sites.

Vault.com Career Q& A



Main Duties and Responsibilities

Mike Nicholaides builds mobile applications, web applications, and business tools for...

0:47

Career Beginnings

Nicholaides's interest in computer programming began in middle school. He earned an...

1:18

Keys for Success

The three things necessary to succeed are: problem solving skills, attention to detail,...

1:58

Education and Certification Requirements

Obtaining a degree or attending code boot camps gives you experience. Most programming...

2:25

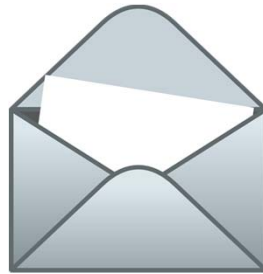
Job Search Strategy #1

Edit your resume for Applicant Tracking Systems.

Applicant Tracking Systems



Use Keywords



No Images



Use Standard Section Headings

Job Search Strategy #2

Tailor your job materials for specific types of opportunities.

If you're interested, here's a sample of what you will get a chance to work on.

- Use your expertise in areas such as **scientific visualization** and multi-threaded algorithm design to **develop compelling visual effects**.
- Work with **Modern C++**, and Object-Oriented software design principles to craft creative new solutions.
- Apply technologies in multiple domain/problem areas (structural engineering, physics, GIS to name a few).
- Apply your knowledge to solve challenging real-world customer problems and **communicate complex concepts to non-expert audiences**.
- Work closely with a **collaborative** team so your team player personality and excellent written/oral communication skills will be essential.

Required Skills and Experience

- A Bachelor's degree in computer science or a related discipline
- Experience with **C++**
- Knowledge of:
 - Object-oriented development
 - Modern software tools (e.g., Git, Subversion, JIRA, Cmake)
 - Ability to work **collaboratively** in a team environment

Other Desirable Skills and Qualifications

- Experience with modern C++
- Experience **working on modeling and simulation programs**
- Experience **working in an Agile development team**
- Interest in **presenting material to customers**
- Experience with **algorithm development**
- Experience with **3-D graphics**

- Fostered a deeper understanding of physics core concepts by creating labs and assignments and providing supportive feedback to each student
- Modelled velocity of vehicles to determine their optimal stop-rate and improve customer safety
- Presented findings to a group of engineers and non-technical employees to provide clear communication about the benefits of the car

Tasks & Skills – Teaching a Course

Tasks

Prepared syllabus

Ordered books

Provided course resources

Prepared lectures and discussions

Developed multimedia resources

Delivered lectures

Evaluated student progress; met with students privately to discuss their progress

Answered questions, created exams, graded papers

Transferable Skills

Developed comprehensive plan for teaching topics and Organized and provide structure for class

- Plan and coordinate
- Presented information to large groups
- Translated complex concepts to new learners in interesting ways
- Managed groups and lead discussions
- Communicated clearly to individual students and large groups
- Manage relationships and act as a mentor

How resumes are read by employers...



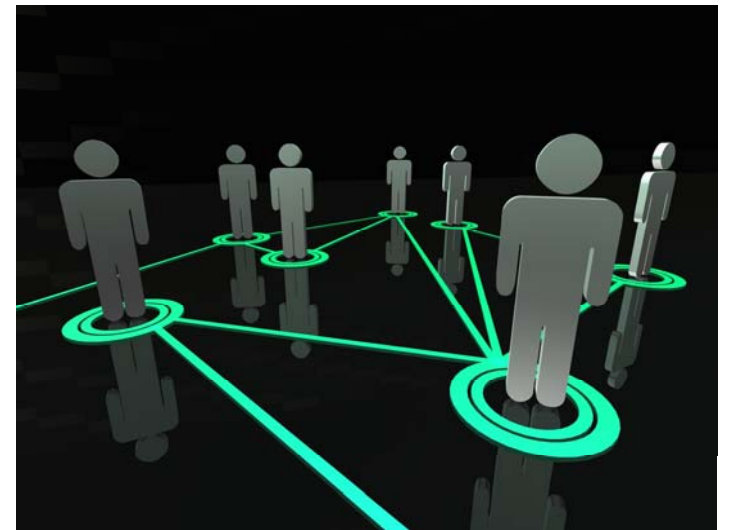
- Candidate Name
- Current Position/Company
- Current Position Start and End Dates
- Previous Position/Company
- Previous Position Start and End Dates
- Education
- Specific Keywords

Job Search Strategy #3

Networking jumpstarts a job search
like nothing else.

How to Find Networking Opportunities

1. Sign up for departmental and office newsletters
2. Look for flyers on campus
3. Look for Information Sessions or Tech Talks
4. [UIUC Event Calendar](#)
5. Treat every event as a networking opportunity
6. Talk to your friends, colleagues, and mentors



Guidelines for Networking

1. Requires time and energy to be successful
2. Take initiative!
3. Your strategy should correspond to the setting
4. Appearance should be professional
5. Be respectful and appreciative of people's time



Developing a Networking Strategies

1. Think about what you're trying to accomplish by networking(Career Research, Job Search, Professional Development)
2. What is the best way for you to meet your networking goals?
3. What do you need to do in order to meet those goals? (Elevator pitch, attend events, research people on LinkedIn, etc..)

Tips for Messaging on LinkedIn

- Message should be short
- Tell them that you are a student
- Tell them why you're contacting them
- Don't directly ask them for a job
- Give them a question to respond to
 - Ex: Can you tell me what you think it takes to be successful in your job?



Example Message on LinkedIn

Dear Mr. Kidd,

My name is Amy Johnson and I am a third year PhD student studying Physics at the University of Illinois at Urbana-Champaign. I'm interested in learning more about the aeronautical design process and the implementation of autonomous designs into aircraft. I saw your profile on LinkedIn and I was wondering if it would be possible to schedule a 15-30 minute phone conversation to learn more about your work.

Thank you for your time and consideration.

Sincerely,

Amy Johnson

Job Search Strategy #4

Evaluate your job search.

Not getting any interviews?



**It's not you,
it's your
resume.**

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resume with**

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www.vmock.com/ecsillinois

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Not getting any
job offers?





Big Interview's proven, step-by-step system combines expert video lessons and our interactive interview practice tool to help you land a job.

<https://illinois.biginterview.com/>

 **big**interview

Evaluate your
job search
methods as
well.



Appointments at ECS

- Resume Review
- Cover Letter Review
- Mock Interview
- Full-Time Job Search
- Internship Search
- Offer Negotiation
- Career Fair Prep
- LinkedIn Profile Review
- Professional Communication
- Career Exploration

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Questions?



ENGINEERING CAREER SERVICES

OPEN WEEKDAYS

8:30 A.M. - 5:00 P.M.

DROP-IN ADVISING

12:00 P.M. - 4:00 P.M.



Thank You!

Colleen McNamee

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Engineering Career Services

