This slideshow will provide engineering, computer science, and data science students at Michigan Engineering with strategies and resources for identifying new employment opportunities, networking with professionals, and creating customized application materials that can be used to apply for employment opportunities.
We often hear from students that they have a hard time identifying potential employers to which they can submit applications. Many students share that they know of the leading employers in their industry, but have trouble finding other quality employers. The goal of this slideshow is to introduce resources and strategies for identifying new potential future employers and developing a list of employers of interest. You can then use this newly developed list to network with industry professionals and apply for open positions as they become available.
Before one can expand their job search, one needs to have a starting point.

Start simple; think about your dream employers, identify companies where your friends/classmates have worked; and/or conduct an internet search of keywords related to your desired industry. Resources like LinkedIn can also be a great way to find out where Michigan Alumni work. Additionally, job postings through sites like Engineering Careers, by Symplicity, LinkedIn job postings, and indeed.com can be a helpful way to find jobs that are currently available.

The goal is to utilize the resources provided in slides 4 through 19 to develop a comprehensive list of possible future employers. Not all of these employers will end up being of interest to you (or even have available positions when you are recruiting). However, systematically utilizing the resources provided below will help you to significantly expand your list of potential future employers.
Expand Your Search

Use the following resources to find more companies:

- **Engineering Careers Job Board**
  - Current + Previous Job Postings
  - Major specific guides
- **D&B Hoovers** — Access thru Mlibrary or ECRC Website
  - [http://www.lib.umich.edu/database/link/9135](http://www.lib.umich.edu/database/link/9135)
- **GoinGlobal** — Access thru Mlibrary or ECRC Website
  - [http://www.lib.umich.edu/database/link/10579](http://www.lib.umich.edu/database/link/10579)
- **LinkedIn**
- **ECRC Annual Report**
  - [https://career.engin.umich.edu/career/salary-info/](https://career.engin.umich.edu/career/salary-info/)

The resources on this slide, and subsequent screenshots, are useful for expanding one’s search. A brief overview of each of the resources we will explore further is provided below (along with the links for accessing select resources, which are provided within the slide above).

**Engineering Careers, by Symplicity**
- A repository of current, and past, employment activities and job postings
- A newly developed resource, available within the Resource Library, are major specific guides for each undergraduate and graduate program at Michigan Engineering

**D&B Hoovers:**
A great resource for identifying new employers of interest, as well as preparing for an interview with a particular company
- One-stop shopping that includes strategic initiatives, business and geographic segments, strengths/weaknesses, and ratio comparisons
- Great way to search for competitors and peers (this is the most helpful aspect of D&B Hoovers, with regards to expanding your job search)
- Excellent resource for public and private companies in the US and Asia

**Going Global:**
Helpful for both international students looking for US opportunities or domestic and international students looking for employment opportunities outside of the United Stated.

- US City Guides
- Top US companies willing to sponsor candidates for work authorization
- International Country Guides to help individuals navigate international job markets

LinkedIn:
Professional social networking site that is ideal for keeping up-to-date on the professional activities of classmates/colleagues, also a great resource for networking and identifying individuals for informational interviews.
- Has expanded to also include employer job postings

ECRC Annual Report
A comprehensive overview of employers that have hired Michigan Engineers, including salary data and top hiring companies
A major guide is currently available for all undergraduate majors, with master’s level guides currently in development (email ECRC at ecrc-info@umich.edu to inquire about the status of your graduate program).

All majors have the first page of information (salaries, industries, companies, and sample hiring companies), with some majors having a second page with information such as a sample elevator pitch, impact statements, key courses & skills, as well as relevant extracurricular activities.

This resource is helpful for students who are looking to learn about the top employers of Michigan Engineering students within their major, as well as the top industries. It also includes additional employers who have hired from this major.

*note: this resource is not exhaustive, it is just a sampling of available data from Michigan Engineering students, alumni, and employers.
D&B Hoovers:
A great resource for identifying new employers of interest, as well as preparing for an interview with a particular company

- One-stop shopping that includes strategic initiatives, business and geographic segments, strengths/weaknesses, and ratio comparisons
- Great way to search for competitors and peers (this is the most helpful aspect of D&B Hoovers, with regards to expanding your job search)
- Excellent resource for public and private companies in the US and Asia

When you log in to D&B Hoovers for the first time, this is what your desktop menu will look like. In the search bar, enter a company that you are currently interested in. In this slideshow, we will look up a company called Cummins, which designs, manufactures, and distributes engines, filtration, and power generation products.
On the employer page, you will be able to view a large amount of information about the company. This includes information including their annual sales, a company summary, description, and history. It also includes access to news resources, annual reports, and a SWOT (Strength Weakness Opportunities and Threats) analysis. The most valuable tab for identifying new employers is the competitors tab, which is displayed on the screen shot above.

Note: While it is a comprehensive resource, not every company is in this database, and not all companies have the same “advanced” fields

If you were interested in Cummins, it is likely that several of these companies are already on your radar, and some are new to you (or they are known, but not one you would have thought about as being in a similar industry). Adding these new companies to your potential list of employers is a great way to grow the list of employers of interest.
You can also utilize D&B Hoovers to search and build a list of employers utilizing search criteria that is important to you. In this example, you will see the results for a Detroit, MI based search of the Automotive & Transportation industry.
Going Global:
Helpful for both international students looking for US opportunities or any student looking for international opportunities.

- US City Guides
- Top US companies willing to sponsor candidates for work authorization
- International Country Guides to help individuals navigate international job markets
For international students interested in US employment, the US City Career Guide, and H-1B visa information resources in Going Global are very useful. This is helpful if you are trying to identify employers who have historically been open to hiring international students.

Please note that companies listed here may offer H1-B job opportunities in cities other than its metropolitan area. Each company page displays the full list of H1-B applications filed by that employer.
For all students interested in employment outside of the United States, the Country Guides can be helpful to identify job posting boards, visa/employment eligibility information, etc...

On the left you will see some of the country career guides available, and on the right you will see information for a specific example, Germany. The example includes information and resources for finding jobs, searching top employers and learning about industry trends, networking resources, financial considerations for living in that country, etc...
Another useful way to identify potential employers is to utilize the alumni tool within LinkedIn. This feature can be used to find where people who attended the University of Michigan are currently working. You can expand upon the basic search to include relevant keywords based on your interests.

Additionally, the Engineering Career Resource Center (ECRC) publishes employer data for top hiring companies, as well as a list of every employer that we know hired Michigan Engineering students from the previous year. Links to both of these documents are provided in the slideshow above, and screenshots of these reports are provided in subsequent slides.
This is a screenshot of the LinkedIn results from Michigan Alumni page:

This set of results include individuals who have “Mechanical Engineering” as their degree/field, and also work in the Engineering sector.
This is a screenshot of the LinkedIn results from Michigan Alumni page:

This particular screenshot focused on “Mechanical Engineering” + “Quality Assurance”. You will notice that the results have decreased significantly from the previous, more general, search.

Underneath the aggregated results you will be able to view the actual profile information for individuals who meet this search criteria.
Each year Michigan Engineering publishes the top hiring companies for the previous year. This includes hires for full-time, internship, and co-op positions. This can be helpful to identify the ‘big names’ who recruit Michigan engineers.
This is a screenshot of the first page of the company list available at career.engin.umich.edu/companylist.
We don’t want to overlook the basics... you obviously need to be looking for employers who are currently hiring! *Engineering Careers, by Symplicity* can be a great place to start. This is a resource that is used by employers to promote technical internship, co-op, part-time, and full-time employment opportunities. It is only available to Michigan Engineering, Computer Science, and Data Science students and alumni. What is great about this system is that the jobs posted within this system were entered by employers specifically looking to hire Michigan Engineers.
You can review all jobs within *Engineering Careers*, or target opportunities based on criteria that is important to you (internship vs. full-time, willingness to sponsor candidates for work authorization, etc...).
In addition to active job postings, you can also review historical data within Engineering Careers. The idea is that if an employer recruited for a desired role in the recent past, they likely have some variation of that opportunity available now or in the near future. You can search employers by industry or keywords. Many employers will include profile information about their company into this resource (i.e. company overview, dress code, mission, etc...).
At this point, you should have the necessary resources to develop a long list of employers (it could be as long as 40 – 50 companies, or even longer). It is unlikely that you will be able to conduct in-depth research on every company, and even less likely that you will be able to network with representatives from all of these companies. You will want to review the list you developed, briefly research the lesser known employers, and the prioritize your list of employers for follow-up. This list should serve as your guide post for searching, and applying to, opportunities of interest.

While this process is useful in-and-of-itself, utilizing the aforementioned resources as the start of your networking process can help to take your job search to the next level.
In addition to applying to companies on your list, it’s likely that there will be some employers who stand out as highly desirable. For your top employers, at least, you will likely want to gather new information to help you enhance your application materials (the more you know about a company, the more customized your resume can be!). In addition to researching information online, networking with professionals (especially to conduct Informational Interviews) is a great way to learn more about a company, and develop relationships with people who may be of assistance throughout your job search (and beyond).

For many people, ‘networking’ is a dreaded term. In reality, however, it is simpler than it may seem. Essentially, it is the process of meeting new people, collecting information (that informs your job search), and maintaining relationships with individuals with whom you have a positive interaction.

*Each year we survey graduates, asking how they found their first job after graduation. Of the 1275+ new alumni (BSE, MSE, PhD) who responded to this survey last year, 33% indicated that they found a job as a result of networking activities. Websites were second (27%), then Career Fairs (23%), then previous internships (17%).
When we asked employer representatives about their willingness to network with students and recent alumni, they said that following two scenarios were the best predictor of their willingness to connect:

- A referral from someone they trust (i.e. a friend, classmate, family member/connection knows the person with whom you hope to network)
- The student/alumni and the person with whom they hope to meet have a shared professional identity (i.e. Michigan Engineering Alumni)

LinkedIn is a good way to manage your relationships, identify professionals with a shared connection, and also identify potential contacts with similar professional/educational experiences!
Prior to utilizing LinkedIn, however, it’s helpful to think about the basics.

Look internally to identify friends and family members who can help you, identify classmates / colleagues who may able to connect you to useful contacts, and also think about previous coworkers and supervisors who may be connected in useful ways. There are also myriad opportunities for connecting with employer contacts: career days, information sessions, technical talks, and career fairs. For the Fall 2020 recruiting cycle, these activities will all be virtual.
When you are thinking about utilizing LinkedIn as a Networking tool, reasonable expectations are essential.

We encourage you to frame your definition of success in a reasonable way; success should be defined as connecting with individuals to conduct informational interviews. Informational Interviews are essentially
reseverse job interviews; instead of trying to convince someone that you are right for a job at their organization, you are identifying a professional who works in/for a company/job/industry of interest and asking them questions about their experiences to inform your own job search. This information can then be used to prepare customized resumes or cover letters. If the conversation goes well, you have the added benefit of having an advocate within that organization (who may be even open to referring you for a position).

You should start by looking through your LinkedIn contacts (First Degree Connections) to see if they know anyone of interest (Second Degree Connections). You can also search for keywords (as demonstrated earlier in the LinkedIn screenshots) to identify additional UM alumni to whom you can reach out.
When it comes to networking, there are two primary ways to connect with new people:

1. You have a shared connection with someone who can introduce you to a desired contact for an informational interview
   This is the best case scenario, and also the clearest path forward. If you find a second degree connection, you reach out to the person you know in common (through whatever means you normally communicate with that individual) and you request that they electronically introduce you to your desired new contact. Be sure to let them know that you are looking to be connected for an informational interview, as even close friends are sometimes reluctant to introduce someone with as strong of an ask as a referral.

2. You identify an alumni through LinkedIn, and you have to send them an email directly without the benefit an electronic introduction.
   In this case, you will not have the benefit of someone introducing you. Instead, you will have to email the individual. The two primary ways you can identify their contact information are through the Mcommunity website, or via LinkedIn.
   - Mcommunity: Many alumni utilize lifetime email forwarding services, so if you are able to find the individual online at https://mcommunity.umich.edu/, there is a good chance that email will find its way to them.
• Note: be careful about this methodology when working names that generate a large number of results in Mcommunity
• LinkedIn Messages
  • Your best bet for free outreach is to send them a LinkedIn connection request, including a message in your request that utilizes the content in the ‘5-point email’ provided in the next slide
  • If you have LinkedIn Premium, you can send messages without being connected to someone
    • Note: we are not telling you to purchase this service, as you can get a lot of benefits from the free version. However, we did want to share that is one way to send messages to individuals within whom you are not already connected
When you are trying to connect with someone new for the first time, we recommend sending an email with the following 5 points:

1. Short: 100 words or less
2. Lead with your connection: For example, that you found them through a LinkedIn group, your both UM engineering alumni, etc...
3. Provide a generalized interest: For example, you want to learn about their experiences with a particular section of the industry (but not so specific as to mention specific projects they may have shared on LinkedIn)
4. Maintain control of follow-up: this gives you an in for sending a reminder email (if you tell them you’re going to follow-up in one week, then you are following through on your commitment by sending a follow-up email, instead of pesterling them)
5. Do not mention that you want them to help you get a job in this message!

The following is an additional sample email, provided by LinkedIn:

Hi Sonya,

I’m a fellow ABC University alum and came across your profile. I graduated in 2003, also with a degree in History, and have been working in the PR industry for the past few years. I’m currently job hunting and hoping to make the transition from the agency side into a role at a nonprofit or university. I really admire your career and was wondering if you might be willing to offer some
advice or perhaps chat by phone? I would really appreciate your time and would be happy to do anything I can to help you.

Thank you and Go Tigers!
Lindsey
Contact Tips

• Structure is important
  – Make sure you keep track of who you contacted and when
  – Use your calendar to note follow-up dates and set reminders

• General rule: Allow 3-5 business days for a response
  – No response?
    • Try a 2nd, new, contact at the same company
    • After a week, reach out to original contact

• Follow-through is important
  – Respond to emails promptly
  – Do what you say you will do
  – Send thank you emails

It is likely that you will be managing multiple networking requests at one time. Therefore, creating a structure for tracking your outreach, and responses, is useful.

Tips:
• Utilize a calendar to track outreach dates, and schedule your follow-up emails
  • Many individuals initially think about using Excel to track engagement with your contacts. Remember, however, that Excel is not a calendar tool. While it may be useful to keep track of notes using Excel, utilizing Calendar reminders can be more helpful so that you don’t have to remember deadlines (easier to make mistakes when you rely on memory)
• Follow through on your commitments: if you said you would follow-up in a week, make sure you do so!
• While it’s discouraging, keep in mind that not everyone will respond to your requests. In fact, you may have to send 10 informational interview requests to get 4 responses, and ultimately 2 informational interviews.
We have developed this list of possible informational interview questions for you to utilize once you schedule your conversations. While these questions may be helpful, please feel free to develop questions that are more relevant to you and/or the person you are interviewing.

Note that these conversations typically last around 20 minutes, so you should only expect to get to ask 3 or 4 questions.
While it’s important to identify potential future employers, and engage in networking conversations with professionals, it is also essential that you actually submit applications to job postings of interest!

The following slides will introduce the concept of customized resumes.
Whenever possible, it is in your best interest as a candidate to submit a customized resume and cover letter. This doesn’t mean you have to completely re-do your resume for every job. Some information, such as your university, major, internship, or student organization involvement will likely remain the same on all versions of your resume. However, you may choose to emphasize some skills for one job (i.e. if a job mentions wanting the ability to collaborate with interdisciplinary teams, you might highlight a collaborative experience you had on a project, or at an internship) and different skills for another (i.e. another job may emphasize technical knowledge, specific technology, methodologies, or programming languages, etc...).
This slide, and the next slide, contain an actual job posting from Engineering Careers for a position at a company called Schlumberger. *note: we are not endorsing this position; rather, we are using a job that has been posted in our system for the purpose of utilizing a real example.

The items highlighted in yellow indicate some key skills or themes a candidate may identify when reviewing a position description. For the first half of the job postings, skills such as management/leadership, optimization, and the design/build/test process are highlighted.
For the second half of the job posting, the following themes/skills are identified:

- Technically specific knowledge (i.e. thermodynamics, or embedded software, mechanical design)
- Design/Build/Test (again)
- Build & Deploy (again)
- Lean Six Sigma (optimization, again)
- Innovation / Creativity
- Technical specialization (again)
- Serving Clients
The next stop of the customization process is breaking down the qualifications sought in the position (on the left), and identifying aspects of your experience that speak to these skills.

In this case, the example student has the following experiences that pair with the qualifications:

- **Optimization / Lean: Green Belt Lean Certification**
- **Leadership**: They were a Graduate Student Instructor, and also held a leadership role in a student organization in undergrad (they could include either, or both, experiences on their resume)
- **Design Process**: The individual could pull from a student project team they were on, a previous internship, or their undergraduate senior design project; whichever experience is the best example of their design skills
- **Technical Knowledge**: They could mention specific courses they took, in this case, in Mechanical Design
- **They could use a research project to address their creativity and/or their ability to turn theory into recommended practice**
- **Client Service**: They could have been from their internship again, or from a part-time job during college
This process is helpful for two reasons

1. It helps you to concretely identify whether or not you are qualified for a position. If you have 10 of the 12 essential skills needed for a job, you know you’re well qualified. If you can only demonstrate 3 of the 12 skills, you have to re-evaluate whether or not it’s worth applying to this position.

2. This can help you to figure out what experiences to include on your customized resume.
   - Example: You had a class project that you think is interesting, and it normally goes on your resume. However, when you do this exercise, you see that it doesn’t address any of the skills needed for the job; this is a clue that you should remove that experience in favor of another experience that is more closely aligned with the position.
   - You should always do your best to distinguish between experiences you think are interesting and experiences that are relevant to a specific position!
Take-Aways

- There are many ways to find new opportunities
  - Make the most of UM resources & alumni contacts

- Networking can help you to be a more informed candidate, and also help you identify people who will support you throughout your career

- You have to actually apply for jobs!
  - When you apply, submit a customized application
LinkedIn Groups to consider joining:
Alumni Association of the University of Michigan — OFFICIAL GROUP
Michigan Engineering Alumni — OFFICIAL Group
National Organization group (i.e. ASME)
Common Interest Groups

Additional Resources:
• ECRC Job Links: [https://career.engin.umich.edu/job-search-links/]
• LinkedIn Groups: The first two groups are official LinkedIn groups that are managed by UM offices. These are groups for both alumni and current students. You are also encouraged to search for any major specific groups for U of M that may be managed by alumni or College of Engineering Academic Departments.
If you have any questions about the content in this slideshow, please email ecrc-info@umich.edu.