

MechE Alliance  
Career Development Resources  
Compiled summer 2020

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## Overview

During summer 2020, over 70 MechE students participated in the first annual Building your Career Portfolio for MechEs workshop series. Through a series of self-guided study, virtual workshops, and peer review sessions, students learned a variety of skills to support their career development and job searched. The series culminated in matching students with alumni/industry mentors to provide feedback on their completed portfolios.

We have gathered the materials and videos from these sessions and links to resources we can highly recommend into this career resource packet. Now, any student can follow the same steps to create or enhance their own career portfolio!

Should you have questions as you work with these career resources, please contact Theresa Werth, Program Manager, The MechE Alliance at [theresaw@mit.edu](mailto:theresaw@mit.edu).

## Resume

### Must Haves

- Your name (in large font) and contact information at the top
- A section called “Education” that (at minimum) includes:
  - MIT + current degree program, using the phrase “candidate for” with the degree name (ex. “Candidate for Master of Science in Mechanical Engineering”)
  - Past schools + degrees earned
  - Graduation dates (past and expected)
- A section called “Experience” (or similarly named):
  - This section should take up the majority of your resume
  - Each experience should have:
    - The position’s title
    - Company/organization name + location
    - Start and end dates (month and year)
    - 3-5 bullet points that begin with action verbs
    - Quantifiable outcomes or achievements, wherever possible
- A “Skills” section:
  - Organized in a logical way for the job you’re applying for
  - Content is targeted towards a specific job posting
- All experiences have dates and locations (including education)
- Resume is entirely in black and white
  - Sometimes recruiters will scan your resume; if there’s color, it may not come through correctly
- Resume is free of errors!! Have a detail-oriented friend proofread for you

### Developing Further

- How to structure bullet points in “Experience” section:

- Consider following “PAR” format:
  1. Purpose: Give context to the problem and your role
  2. Action: What were you directly responsible for?
  3. Result: What were tangible outcomes of your work?
- Other (optional) sections you may consider adding:
  - Summary (at the very top)
  - Leadership
  - Awards/achievements
  - Interests and activities

## Resources

- MIT CAPD
  - General tips and examples: <https://capd.mit.edu/jobs-and-internships/resumes-cvs-cover-letters-and-linkedin/resumes>
  - List of action verbs: <https://capd.mit.edu/sites/default/files/jobs/files/resume-action-verbs.pdf>
  - Virtual resume review: <https://www.vmock.com/mit>
- MIT MechE Comms Lab: <https://mitcommlab.mit.edu/meche/commkit/cv-resume/>

## Cover Letter

### Must Haves

- Your name and contact information in typical letter address format
- At least 3 paragraphs:
  1. Introduction: explain your background, express interest in position and company
  2. Body: Elaborate on experience, explain why it qualifies you for the position
  3. Closing: thank reader, summarize your candidacy, express interest in follow-up
- Use active, first-person writing style as much as possible (similar to resume bullet points)
- Proofread!!

### Developing Further

- Know your audience!
  - If your letter is to a recruiter without a technical background:
    - Do not include as many technical details

- Summarize qualifications in a tangible way for a non-technical reader
- If your letter is to a manager for your position:
  - Consider including more (relevant) technical details to showcase qualifications

## Resources

- <https://capd.mit.edu/jobs-and-internships/resumes-cvs-cover-letters-and-linkedin/cover-letters>

## Personal Introduction/Pitch

### Scenarios Where It's Necessary

- Recruiting/networking events
- Job interviews
- Informational interviews

## Must Haves

- 3 basic components of your pitch:
  - Greeting/professional standing
    - Name
    - Current position or educational background
    - Goal/purpose, if applicable (ex. targeting specific position or type of position)
  - Experiences, achievements, or qualifications. Example content:
    - Personal motivation
    - Example of relevant experience
    - Notable skills or strengths
  - Conversational lead-in or call to action (ex. request to talk, question about company)
- Make your introduction 30 seconds or less
- Practice, practice, practice!!
- Always address the questions:
  - Who are you?
  - Why are you here?
  - How are you relevant? (i.e. what can you offer?)
  - So, what next?
- Brevity is a must: give just enough information so they'll want/ask for more

## Developing Further

- Consider having different versions of your pitch depending on:
  - Scenario (ex. one version for recruiting, one version for interviews)
  - Audience (ex. one version for HR, one version for engineers)
- Suggestions for making your introduction more engaging:
  - Include a short story that showcases interest and/or experience
  - Mention any connection to the employer (ex. you went to an information session)

## Resources

- <https://wmich.edu/career/personalcommercial>
- <https://www.indeed.com/career-advice/career-development/self-introduction-tips>
- <https://www.indeed.com/career-advice/interviewing/how-to-give-an-elevator-pitch-examples>
- <https://www.cmu.edu/career/documents/quick-tips/elevator-pitch.pdf>

## LinkedIn for MechEs – Beyond the Basics.

LinkedIn has become a standard part of professional networking and career search. This profile will cover high-level tips to create a robust profile then cover the many built-in features that makes the platform for networking. Participants will learn how to use LinkedIn to search for jobs and how to connect with employers or collaborators. Emphasis is placed on recommendations for mechanical engineers. We will also cover LinkedIn Groups and recommended groups for MechEs. Presented by Meredith Pepin of the [MIT Career Advising and Professional Development](#) office.

[https://youtu.be/q\\_GWc7w6rwl](https://youtu.be/q_GWc7w6rwl)

### LinkedIn Groups

Current MechE students are invited to join the [MIT MechE Alumni](#) LinkedIn group, which is a growing community of MIT MechE professors, alumni and students. The MechE Alliance and MechE Communications staff manage this group.

The MechE Alliance has also just launched at [MIT MechE Alliance](#) LinkedIn group. This brand new group is being developed to be a place for students, alumni and recruiters to connect. Be among the first to join!

## Portfolios

In this two part series, you will learn how to setup a basic portfolio and then tips and techniques to fine-tune your materials to have the targeted impact you are seeking.

### Part 1 – Intro to Building Your Portfolio

Having a portfolio is important for students when interviewing, explaining projects and demonstrating design skills. In this workshop, you will learn the fundamentals of getting started with drafting your portfolio. Topics will include what is a portfolio and why are they important, common virtual platforms, layout and design, examples from MIT alumni, and how to draft a biography. Participants will be provided online resources to explore their chosen platform in more detail. The workshop will conclude with a brief talk and Q&A by Troy Thorson from Milwaukee Tool who will discuss how he and fellow hiring managers use portfolios in their recruitment and tips from his years of industry experience. Presented by Meredith Pepin and Tavi Sookhoo from the [MIT Career Advising and Professional Development](#) office.

<https://youtu.be/wqwmQ3UhKN8>

## Part 2 – Developing your Portfolio Content

Creating a portfolio that represents your goals and highlights relevant projects will ensure that you connect with your intended audience, be it employers, sponsors, etc. This workshop will cover how to define yourself and choose your content, portfolio structure, how to create a story for your project, selecting and improving your visuals. Participants will also review example portfolios shared by alumni so you will later be able to review your own. Presented by the [MIT MechE Communications Lab](#) Manager Svetlana Boriskina and Fellows Victor Prost and Georgia Van de Zande.

<https://youtu.be/Wz049ZqhLNQ>

## Informational Interviews

### General Tips

- Have your personal introduction ready
- Understand your goal for informational interviews before requesting them.  
Examples:
  - Learn about a career trajectory
  - Learn about a specific company
  - Find ways to stay up-to-date in your field
- Prepare just like you would for a job interview
  - Research the person's background ahead of time
  - Prepare a list of questions
- Ask for referrals to new contacts – this is how you can grow your network
- Send a “thank you” note or follow-up after the interview

### Example Questions

- <https://career.gatech.edu/informational-interviews#Info%20Interview>
- <https://career.berkeley.edu/Info/InfoQuestions>

## Resources

- <https://www.unh.edu/career/informational-interview>
- <https://uncw.edu/career/informationinterviews.html>
- <https://capd.mit.edu/jobs-and-internships/research-industries-and-companies/networking-and-informational-interviews>
- [Schedule a practice interview with the MIT MechE Communications Lab](#)
- [Schedule a conversation or practice interview with Career Advising and Professional Development](#)

## Technical Interviews

### General Tips

- Practice solving problems out loud and explaining your thought process
  - Keep talking, even if you don't immediately know the answer
  - If you don't know an answer, explain how you would solve it if you could look things up
- Choose practice questions based on the specific job
- Be familiar with the fundamentals from the following areas of MechE:
  - Basic laws of motion
  - Mechanics and Materials
  - Thermodynamics
  - Fluid mechanics
  - Machine elements
- Browse Wikipedia to gain general knowledge about things related to the job/field
  - Ex. If applying to Ford or GM, research the basics of engines, design of wheel axles, manufacturing methods for car parts, etc.
- Have paper available if you want to write things down while you solve problems
- Don't be afraid to pause and collect your thoughts!

### Example Questions

- [https://www.glassdoor.com/Interview/mechanical-engineer-interview-questions-SRCH\\_KO0,19.htm](https://www.glassdoor.com/Interview/mechanical-engineer-interview-questions-SRCH_KO0,19.htm)
- <https://www.youtube.com/watch?v=6P75IIIJLagI>

## Resources

- [Schedule a practice interview with the MIT MechE Communications Lab](#)
- [Schedule a conversation or practice interview with Career Advising and Professional Development](#)



## MechE Portfolio Bank

The MechE Alliance has created a student portfolio bank. This serves as a way for employers to see the breadth of student interests and skills in addition to aiding them in identifying students for general networking, internships, and full-time employment. For students, this allows you to reinforce your connection to MIT MechE in addition to serving as a way to organize the various aspects of your career portfolio. If interested, the MechE Alliance will highlight individual students' portfolio over to their LinkedIn audience.

<http://www.meche-portfolios.mit.edu/>

In order to submit your portfolio, you must have an up to date Resume, LinkedIn Profile, and Portfolio. We will review submission to ensure the person is a student at MIT MechE and that the materials posted are reasonably up to date. If we feel there is a concern, we will reach out to the student and work with them to complete their submission.

Students who did not participate in the summer 2020 "Building your Career Portfolio" series are encouraged to read/view the materials in this resource guide before submitting their portfolio.

## Networking

### MIT Alumni Advisors Hub

The student participants in the "Building Your Career Portfolio" series greatly valued the opportunity to discuss their materials and careers with MechE Alumni. Students can re-create this experience easily on their own by using [the MIT Alumni Hub](#).

Search through an extensive directory of alumni who have specifically volunteered to have mentoring conversations with students. Search base on the alumni's degree, current role or organization, and much more to find just the right fit for your needs. The alumni list what they are open to discussing (general chat, resume review, practice interview etc. Once, you have identified an alumni of interest, you can view times they are available and schedule a meeting all in the online platform.

### LinkedIn

Please review the information and linked video in the "[LinkedIn for MechEs](#)" section of the document. Students have responded that there were many more features for networking in LinkedIn than they realized before taking these trainings!

## Acknowledgements

Resources for resumes, cover letters, personal introductions, informational interviews, and technical interviews were researched and compiled by series "TA" [Ryan Koeppen](#).

Our thanks to Meredith Pepin and Tavi Sookhoo from MIT's Career Advising and Professional Development office for their collaboration and delivery of the LinkedIn and Intro to Portfolios content!

The MIT MechE Communications lab contributed immensely to the planning of this series and we thank Svetlana Boriskina and Fellows Georgia Van de Zande and Victor Prost for their excellent "Developing your Portfolio Content" workshop.

To our many alumni who contributed by being a speaker, providing feedback, or meeting with our students, we are deeply grateful. You have made a huge difference for our students.