Best Practices for UROP Mentorship in EECS

Mazdak	William	David	Divya	Cecilia	Anna
Abulnaga	Boag	Palmer	Shanmugam	Testart	Zeng

Learning how to be a mentor is an important—but rarely formalized—part of graduate education. As UROP mentors, we struggled with questions such as how to onboard our mentees, whether we are too hands-off vs. hands-on, and more. And as we spoke to fellow grad students in EECS, we realized we were not alone in our search for best practices in effective mentorship.

In Fall 2020, we launched an initiative to study mentorship best practices in earnest. We started by interviewing over 13 current and former UROP mentors, many of whom had won mentorship awards. After these interviews, in Spring 2021 we began hosting a mentorship discussion group consisting of current EECS PhD students with varying experiences in mentoring UROPs. We hosted three sessions, one each month, covering the following topics inspired by what we learned in the Fall 2020 interviews:

- i. practices for onboarding a new UROP student;
- ii. practices for motivating your UROP student; and
- iii. practices for concluding a UROP.

This document summarizes what we learned from our interviews and discussion group, providing guidelines for future graduate mentors. We intend this document to be used to prepare for and improve the UROP experience. It *should not* be read as a few boxes to tick as a way to guarantee success, but rather as a launching point to reflect on your mentorship practice. It could be a great tool when facilitating: mentor planning, mentor-mentee discussions, and community-of-mentor discussions.

The first section is organized as a list of common/best practices for onboarding a new UROP student. The second provides a set of common problem scenarios that may affect a UROP student's motivation and experience. We outline common scenarios and potential solutions to improve the UROP student's experience. The final section outlines practices for concluding a UROP, including planning project deliverables, conducting an exit interview, and discussing the conclusion of the UROP project.

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Practices for UROP Onboarding

This is a collection of things to consider when onboarding your UROP student. Some things are lab-specific (e.g. lab culture, technical infrastructure, etc). We hope the examples add specificity to help appreciate all of the details that might need to be discussed with the UROP student. We encourage you to be a la carte with these suggestions (and let us know which ones prove useful).

We include a few examples of onboarding emails sent to UROP students in Appendix A.

Defining Goals

Final Product: Make sure you and your mentee are on the same page about what you both want to get out of the project. Possible goals might include:

- presentation to the PI, other members of the group, or the whole lab
- learning a body of research together and starting a project;
- developing a specific skill for the mentee, while contributing to a larger project;
- writing a blog describing not-quite-publishable work and what they learned;
- publishing a paper together (for longer UROP experiences).

Growth: Discuss and understand your student's strengths and weaknesses and what the student hopes to learn from the research.

Timeline: Does the UROP student only want 1 semester? Are they thinking about an eventual MEng or graduate school?

Starting Up The Project

Assemble Before First Meeting: Typically, the whole field might be new to the UROP student. How will you tell them about the project so that they understand what they're working towards?

- What is the research question you're trying to answer?
- Is there a short write-up they can refer to and build on?
- Is there a preliminary literature review?
- Is there a simple code and data demo that you can walk through together?

Early Project Tasks Ideas: Provide tasks that help them learn the material and build confidence. Keep in mind that it will be hard to understand everything at first! Stay conscious of overwhelming them with new material.

- Read, summarize, and discuss background material (blogs, course notes, papers)
- Complete problem set(s) from a relevant class
- Complete code tutorials and/or adapt tutorial to project data
- Send them a book related to the project ("onboarding gift") and discuss.

Setting Project Expectations

Availability: What is your mentee's availability during the semester? What is your availability?

• *Their Commitments*: What else is the student involved in, and how much time do they expect to set aside for research?

- Your Commitments: Do you have busy days/weeks coming ahead in the semester (conference/submission deadline/etc...)?
- Be Understanding: Make sure you ask them how they are doing, and let them know (e.g. it's fine if they aren't able to work a given week). Show your human side.

Meetings: Ensure you're on the same page about meeting expectations such as:

- Check-ins: 1-on-1? Multi-UROP student group project meeting? Including PI?
- *Frequency:* Once a week? As needed?
- *Project Updates:* Do you expect your UROP student to prepare materials for each regular meeting? (e.g. an update slide or a meeting agenda)
- *Notes:* Your own private notes about the meetings? A shared google doc for joint notes and next steps?

Out-of-meeting Communication: Set expectations for what is the best way to contact you.

- Medium: Slack? Email? Messenger? Visiting your desk? Designated "UROP drop-in office hours" periods?
- Response Time: Usually very fast? Nothing during nights and weekends?
- *Project Updates:* Do you expect your UROP student to send you regular updates outside of meetings? (e.g. email updates once per month or mid-semester check-ins)

Integration with Lab Culture (lab-specific)

Introduction: Do you plan to introduce your UROP student to the group (e.g. at group meeting, on Slack, in an email)? Are there community norms (e.g. pronouns in their Slack name)?

Meeting Types: Which meetings should your UROP student be aware of (e.g. group meeting, <u>reading groups</u>, seminar series, etc.)? Would they enjoy being invited to faculty job talks?

Meeting Participation: What does good participation look like? Are they expected to attend? Discuss a paper they've read? How can they prepare for these meetings? What types of questions could they ask?

Social: How will they meet others in the lab? Is there a slack "coffee bot", or introductions you could make? Are they added to the group calendar so they can keep track of group events?

Setting Up a Workspace (largely lab-specific)

Physical Space: building card access, office space—is there a place for students to sit?

Safety: ensure your UROP student is aware of all safety requirements in your lab, and complete the necessary safety training to use the labspace.

Virtual Access: CSAIL account creation, server access, project directory, data, compute cluster, SSH-ing into servers, Openstack, group mailing list, group wiki, group website.

Useful Tools: e.g, git, using GPUs, bash scripts, config files, experimental infrastructure, plotting, finding related work, citation management.

Payment: Is the UROP for pay or credit? When is the deadline to apply? Do they know who to send their hours to? Do you or your PI need to approve those hours?

Practices for UROP Motivation

Scenario: Lack of Progress

A common problem you may encounter with your UROP student is a lack of perceived progress in your project. This can manifest in many ways, and it is often best to have a direct conversation with your UROP student to outline your expectations and see why they are not being met. This can be stressful for a UROP student, so it is important to be empathetic and see it from your UROP student's point of view. Lack of progress is hard to quantify, but we will outline a few common scenarios.

Your UROP student is working very few hours per week and is not making progress. In your one-on-one meetings, they don't have much to show. They don't ask many questions, and overall don't seem to be engaged.

- This is a tricky situation, and the lack of progress could be due to several reasons. It is best not to assume, and instead have a conversation with the UROP student.
- The UROP student may be feeling overwhelmed and does not understand well what their tasks are. They may feel stuck, and don't even know where to start.
 - A potential solution would be to "jumpstart" the project, by working with them directly to get the initial steps off the ground. For example, you could do a live coding session with them.
 - Set up a technical tutorial.
 - Set aside time every week where the two of you can work together (physically or virtually), even if you are working on different things.
- Your UROP student may be uninterested in the project plan you have laid out for them. While this can be disappointing, you may need to pivot the project direction to have them engaged. You will need to have a "check in" conversation to get a sense of how the project is going for the UROP student. It can be helpful to present alternative directions to see if any pique their interest.

Your UROP student has a very busy schedule and cannot spend more than 2h at a time in the lab which makes it difficult for them to make progress.

- The UROP student has too many other commitments, and simply doesn't have adequate time to devote to the project. Working through their schedule and finding ways to temporarily reduce the scope of the project may help build momentum.
- Have a conversation with your UROP student to see if this may be a time issue or a scheduling issue. For example, would you be able to meet earlier in the mornings, in the evenings, etc?

Your UROP student is unresponsive and does not answer emails for weeks at a time. You are not sure if they are even interested in this project anymore.

• In this situation, it would be best to have a direct conversation with your UROP student. Your student may be afraid to disappoint you. They may be unresponsive because they are too busy with courses to make progress in the project, or they may no longer want to work on this project.

Scenario: Time Burden

Do you find that mentoring your UROP student is taking much longer than you expected? In our discussions, we found that mentors commonly spend 1-2 hours per week mentoring. This breaks down into a weekly check-in and project communication through the week. Some examples of how this friction may manifest:

Your UROP student is very motivated. She asks a lot of questions and requests significant guidance. You frequently receive messages from them late at night and feel that the amount of time you have available may be holding them back.

- There are ways to expand their engagement with research that do not rely on your schedule:
 - a. You can introduce them to reading groups, seminars, and classes that might be of interest to them.
 - b. You can set up one-on-ones with others in the lab for them to discuss their interests and develop their research taste.
- It's difficult to set boundaries without implying you're unavailable. Try reframing this positively; for example "I'm most responsive on Tuesdays and Wednesdays!".
- You may also find that the questions they are asking are scattered trains of thought. One way to address this would be to ask the UROP student to prepare a list of questions, and go over them once or twice a week. This way, your time will be less fragmented and more manageable. The student may also figure out the solution by giving time to sit on the question.

Your UROP student requires hands-on guidance to make progress. You frequently have to pseudocode experiments and debug scripts together. The UROP student is happy with the work, and feels like they're learning a lot, but you're not sure this type of one-on-one coaching is sustainable.

- Introduce them to external resources that they can use to resolve technical issues. These can include common forums for discussing roadblocks with specific libraries or languages (Github issues or PyTorch forums, for example), lab-specific channels for implementation questions, or technical tutorials.
- Be up front with your availability.
- Allot specific pair programming time, but let them drive.
- This may be caused by a lack of structure in your UROP student's weekly tasks. It may be helpful to spend time meeting with them and developing a list of tasks to keep the UROP student focused. They may require time to be able to develop their own list.

Scenario: Poor Communication

Another set of issues that happen often in working with UROP students are communication problems. This can manifest in many ways and often stems from unspoken misconceptions which can be addressed upfront. It's important to remember that a UROP position may be the first professional work experience that the student has had, so they might not talk to a UROP supervisor as easily as to a peer. Here are a few examples of communication issues:

In weekly meetings, the student appears hesitant about sharing their ideas. They may have difficulties presenting the work they do between checkpoints. The conversation may feel one-sided, with the student only answering your questions and not asking follow-up questions or for help. The student may also simply feel shy.

- Try to set an open and supportive environment for your 1-1 meetings with your UROP student, and give them time to talk. Encourage your mentee to ask many questions.
- More than focusing on the 'results' of their work, **ask them how they spent their time** and what they worked on, so you can discuss problems and progress. For example, the student may have spent the whole week cleaning data—that is OK. Sometimes, you may find that they were indeed doing quite a bit of work but did not have many "results" to show.
- At the end of a meeting, ask them to summarize the meeting and list their upcoming tasks, this gives them the opportunity to reflect and ask questions about something that is unclear.
- It can be useful to discuss other (non-project related) ideas until they feel comfortable sharing research ideas. You can engage in other conversations with your student, for example by
 - a. Gifting them a book at the beginning of the UROP and discussing it with them throughout.
 - b. Having them read a paper/blog and discussing it together.
 - c. Inviting them to talks and chatting about them afterwards.
- Repeat to your student that you are available for them to ask you questions via the channel you prefer (emails/slack/etc). UROP students can perceive mentors are too busy and they won't want to use too much of their time or 'disappoint' them. If you schedule a regular time to meet, it can help students feel they have your attention during at least all of that block.

In lab-wide meetings with the UROP student, they don't talk much. They appear hesitant about sharing their ideas with a larger crowd or in front of the PI. Here are some ideas to make them more comfortable speaking up in the larger group:

- Give the student a template of questions to ask during group meetings: 'I didn't understand the data shown in this slide, could you explain that again please?', etc.
- Set up one-on-ones with others in your lab, this can help your UROP student become comfortable with other lab members. You may also join the one-on-ones if they prefer.
- Set up smaller meetings with graduate students, to build up to a meeting one-on-one with your advisor.
- Co-present with your student at a group meeting.

• Practice the presentation together - propose doing a practice run-through.

Scenario: Trouble Identifying Research Topic

UROP students are often in the process of identifying their research taste. As a result, it's possible that their interest may evolve away from their initial research project. The project may also expand to require tools you—the mentor—are ill-equipped to provide directly.

This presents an opportunity to engage with an area of research outside of your own and connect your mentee with the broader academic community. You can still provide support by connecting them to appropriate resources. These include setting up one-on-ones with others in your lab, sharing resources (textbooks, lectures, papers), and helping them arrange to meet experts in the field who can provide additional guidance.

This is also an opportunity to observe that mentorship need not be exclusively academic. You can still mentor your UROP student as a whole person even if you lack the technical resources to guide the project. Mentoring a student can be seen as embarking on a journey together, neither of you necessarily having an idea of what obstacles lie ahead. You can help your mentee learn the ropes even if you can't see beyond the horizon.

If your UROP student is unmotivated/uninterested in the project: ask them directly what they would like to work on. Options include ending the UROP, finding another project with you, or finding another project within the lab. Recommend that they read broadly (reading 100 abstracts can be more creativity-inducing than 10 papers).

If your UROP student wants to significantly change the project: ask them to explain why they'd like to move in a specific direction and emphasize that this is good progress. Be straightforward about your expected involvement in the new project. You can have them pitch their new idea to others in your lab.

Practices for UROP Conclusion

Deliverables

A deliverable is a document (report, presentation, paper, etc...) that describes or showcases the work done by the UROP student. Deliverables can take many forms, depending on the goal, the audience, and the project itself. The deliverable can be built on during the UROP experience. Some UROP mentors ask for one slide per meeting to then use as a starting point of a final presentation. Other mentors use google docs, which is more flexible but then takes longer to clean up. Here are some different options that can guide how the final document will look like.

Why: What is the goal(s) of the deliverable? It's helpful to think about what would be the most useful for the UROP student's career goals and what is requested by your research lab/PI.

- Ensure continuity of the project
- Workshop/seminar/conference submission
- Preparation of next UROP proposal
- Support for recommendation letter writing

Who: Who would be the audience?

- PI (specially if PI doesn't meet often with them)
- Larger group
- Workshop/seminar PC members
- Other students

How: Deliverables can take many different forms:

- Paper to be submitted
- Presentation to the larger group or to the PI (with other UROPs if there are more in the same lab)
- Long abstract of work done
- Following Workshop/seminar submission guidelines

Exit interview

The purpose of the exit interview is to assess the UROP student's experience and to evaluate how you did as a mentor. The interview can provide feedback and help you find ways to improve the project and your mentorship skills to provide a stronger experience for the next student you supervise. Variations of the exit interview can also be conducted as a mid-semester or end-of-term check in, to potentially pivot the project direction or match your mentorship style to the student's preferences.

While designing an exit interview, focus on what specific aspects of the UROP project you want feedback on. Can you think of specific metrics to assess your mentorship and the student's experience? Think about the UROP student's personal and academic growth, the opportunities

provided to them, and the skills you wanted them to learn. Consider your soft skills as a mentor: communication, leadership, and planning.

It's important to note that the student may not want to answer these questions honestly, as it may be awkward. It's critical to have the interview focus on their own experience, and frame it as a way to improve the opportunity for future students. You may also send them the list of questions beforehand, so that the students have sufficient time to think and form clear answers.

To help get you started, we provide a list of questions below used in exit interviews by UROP mentors in CSAIL. Use these as a starting point and develop specific ones for your project.

<u>Research</u>

- How did this project compare expectation wise to when you first signed on to do the UROP? Anything better or worse than expected?
- What did you enjoy most about this project? Least about it?
- Do you feel that you learned a lot about machine learning and medical imaging? Are there things you still want to learn about?
- During your UROP experience, you came in and I said you were going to work on one project idea, but as the semester went on, we gradually pivoted to a related but quite different project goal. Which of the two projects did you prefer and why?
- Because you came in with technical skills, our weekly meetings were structured where you'd work for a week & report the results to me. Then we'd discuss the analysis & what would be good followup questions for you to investigate for the following week. How was this process for you? Was it, for instance, too hands off?
- What were your expectations for what you wanted the UROP experience to be like?

Logistics

- Did you have any problems creating a CSAIL account? Were the other challenges to being able to access the computing resources required to run experiments?
- Would you have wanted to be involved in more meetings? Did you feel you had enough opportunity?
- Did you have enough support from me?
- How was the process getting compensated for your weekly hours that you worked?
- For the first 2-3 weeks, we read blogs and papers to orient you to the field, the methods, and the task. How did this process go? Too fast? Too slow? Just right?

Professional Development

- Do you feel that you over, under, or just achieved the initial goals we had set out for this project?
- Was there anything that you would have wanted to learn more about, or spend more time on. For example reading versus coding?

- Did you feel you learned a lot of skills that would be useful to you from this project?
- How did you find the difficulty of this project? Did you learn a lot by doing it?
- Did you feel that I gave you adequate opportunity for self-learning?
- How did you feel about the level of my involvement in the project? Would you have wanted more or less?
- What advice would you have for the next UROP?
- What are the first reflections you have about your UROP experience?
- For the first month of the UROP experience, I sent *very* detailed email chains summarizing our meeting and giving very explicit and comprehensive TODO lists. Was this helpful to do? Do you wish I'd continued to do that?
- Your project was individualized. Would you have preferred a group project?
- Are there any tasks or parts of the UROP that you were proud of?

Culture and Belonging

- Why did you decide to stop doing the UROP now?
- In retrospect, would it have been useful to do a 1-month temperature check on how the project was going?
- Were there parts of the experience that you enjoyed?
- You were invited to attend the lab's group meetings. Not all of my UROPs attended, but you did. What was that like?
- If we'd had some kind of structured "Get coffee with another PhD student" opportunity, would you have utilized it?
- Was there anything that I did as a supervisor which made you feel uncomfortable?
- Do you wish you were more connected to other UROPs in the group or even at CSAIL more broadly?

Conversation about Continuation

The exit interview is about gathering feedback about the project up to now. Around the same time, you and your UROP student can have a complementary conversation about the future. Is the project complete, or do you have further ideas you want to explore together? Even if you do not continue the UROP project itself, you can still discuss ways to continue the mentoring relationship and support your UROP's future career.

- What is the goal of this conversation?
 - Recalibrate expectations for continuation
 - End the collaboration in a courteous way
- If you decide to continue working together:
 - Recalibrate expectations: understand areas of growth/identify misaligned expectations
 - Identify how the next semester will differ from the current semester. Will your student be applying for jobs or taking a heavier class load? Will you be applying for jobs or TA-ing a class?

- Discuss long-term goals for the ongoing collaboration
- If you decide to conclude your collaboration:
 - Identify whether the undergraduate would also like to conclude the UROP. If so, ask why to inform your future mentorship.
 - Prepare an explanation for why you think it's wise to conclude the UROP. Be specific and acknowledge that you are speaking from experience, and you may not know everything.
 - Offer the student the opportunity to clarify their experience—this is also the province of the exit interview.
 - Let your UROP student know that you can still be a resource, for letters or advice. They may not know this!
 - Identify a "minimum viable product" to finish before ending the UROP.

Appendix A: Examples of Onboarding Emails

These emails demonstrate the kind of emails that some mentors have sent to their new UROPs. Rather than generalize the project specifics away, we wanted to embrace them to demonstrate different ways you could engage with your new UROP.

It was nice r	neeting you today! Just wanted to followup with some of the links/info from the project pitch earlier today:	
 The id o Interact o c d <lid< li=""> <lid< li=""> d <l< th=""><th> a for the project came from the <u>1-yr mortality prediction project I was doing for my Summer 2019 internship</u> 'd considered using per-group thresholds (i.e. take the top 8% of each group rather than top 8% of the mixed whole) This problem of bucketing doesn't scale as the number of demographic types increases tions between demographic types (e.g. race & gender) is a well-studied problem in academic philosophy. The term "Intersectionality" was created in the 1980s by Kimberle Crenshaw to describe issues where e.g. the experience of black women is different & not captured by just looking at the experiences of black people and the experiences of women (e.g. a company that fires black women but isn't covered under the Civil RIghts Act because hey are empirically not discriminating against black people (because they hire black men)). My literature search of intersectionality in the new Algorithmic Fairness community found <u>An Intersectional Definition of Fairness</u>, which seems like it's probably a nice framework as a starting point. also found an intersectional FAT* apper by Timnit: <u>Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification</u> FAT* is the premiere Algorithmic Fairness conference and Timnit is very well-regarded in that field. expecting an experiment-driven study, where we try a few methods on different data (synthetic data where we control the biases and the real dataset, MIMIC, from Harini's paper) and see whether any interesting results emerge. Naive/Baseline: exponential buckets Clustering-based approach e.g. ratio between ordinary model's risk and demographics-based model's risk Choose your adventure. We could try exploring some of the math-y formulations from the Intersectional Definition of Fairness paper if you want. I don't anticipate that this will be a programming-intensive project by Systems standards, though as far as M</th><th></th></l<></lid<></lid<>	 a for the project came from the <u>1-yr mortality prediction project I was doing for my Summer 2019 internship</u> 'd considered using per-group thresholds (i.e. take the top 8% of each group rather than top 8% of the mixed whole) This problem of bucketing doesn't scale as the number of demographic types increases tions between demographic types (e.g. race & gender) is a well-studied problem in academic philosophy. The term "Intersectionality" was created in the 1980s by Kimberle Crenshaw to describe issues where e.g. the experience of black women is different & not captured by just looking at the experiences of black people and the experiences of women (e.g. a company that fires black women but isn't covered under the Civil RIghts Act because hey are empirically not discriminating against black people (because they hire black men)). My literature search of intersectionality in the new Algorithmic Fairness community found <u>An Intersectional Definition of Fairness</u>, which seems like it's probably a nice framework as a starting point. also found an intersectional FAT* apper by Timnit: <u>Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification</u> FAT* is the premiere Algorithmic Fairness conference and Timnit is very well-regarded in that field. expecting an experiment-driven study, where we try a few methods on different data (synthetic data where we control the biases and the real dataset, MIMIC, from Harini's paper) and see whether any interesting results emerge. Naive/Baseline: exponential buckets Clustering-based approach e.g. ratio between ordinary model's risk and demographics-based model's risk Choose your adventure. We could try exploring some of the math-y formulations from the Intersectional Definition of Fairness paper if you want. I don't anticipate that this will be a programming-intensive project by Systems standards, though as far as M	
	 projects go, it is probably more programming-heavy than other UROP projects I've overseen. I foresee a lot of tinkering as we play with the Methods. 	
Hi		
Here are a few or	aboarding things to do. I'll go over these in more detail tomorrow.	
We have reading http:// and getting acces	group every Monday from 11AM-1230PM on zoom. We have a reading group wiki where we post the readings every week: You should also join the <u>Pilsts.csail.mit.edu</u> mailing list. Instructions for joining the mailing s to the wiki are on the wiki webpage. You are welcome to attend these, we discuss one paper every week.	lis
attend these. One	gs are TBD. If you are interested in attending, please fill out this when/2meet: https://www.when/2meet.com You are also welcome group member presents their research, and usually about what is not working.	το
Our group website cluster, and other	e can be found here: https:// . There, you can find information about group machines, how to access useful information like tips on how to setup the GPUs for computation.	th
I'll add you to the documentation.	group calendar to get the zoom info for these meetings. Can you give me your gmail account? I will also share with you the Drive folder with the proje	ect
All of our data is I	ocated on the CSAIL fileserver. Please create an account here: https://tig.csail.mit.edu/accounts-authentication/	
For next week, we the "Learning PyT segmentation alg know your GitHut	ork on the PyTorch tutorials and play with the data once you have CSAIL access. For the PyTorch tutorials, <u>https://pytorch.org/tutorials/</u> , I would do all orch" and "Image/Video" tutorials. You should also read the attached two papers. One is on the U-Net architecture, the other is on a placenta orithm using the UNet. You should also take a look at the placenta project documentation (will share the Drive folder with you), and the codebase. Let account and I will add you to the repo.	of m
The project is loca	ated at /data/ The software I used to visualize the images is called 3D slic	er
mps.//www.slicer	orgr.	

Lastly, in order to access the CSAIL network remotely, you will need to follow the instructions on this page: https://tig.csail.mit.edu/network-wireless/ssh/. Let me know if you need any help with that.

For all of our future meetings, we can use my zoom: https://mit.zoom.us.



CSAIL account

- NOTE: You can check if you already have a CSAIL ID here: <u>https://inquir.csail.mit.edu/user</u>
- Follow the instructions for Getting an Account (<u>https://signup.csail.mit.edu/signup</u>)
- \circ ~ For relationship to CSAIL, put "UROP", and for Research Group put "Clinical
- Decision-Making" so the request gets routed to Peter Szolovits.
- Send your CSAIL account to <u>@mit.edu</u> or <u>@mit.edu</u>
- CITI Certification: This is a <1 hour bioethics research course, required because of the sensitive nature of medical data (https://couhes.mit.edu/training-research-involving-human-subjects)
 - First register on the CITI program website, selecting "Massachusetts Institute of Technology (SSO)" as your organization affiliation (not "independent learner")
 - Follow the links to add a Massachusetts Institute of Technology Affiliates course. In the Human Subjects training category, select the "Data or Specimens Only Research" course.
 - Complete the course and save a copy of your completion report. The completion report lists all modules completed, with dates and scores.
 - \circ $\;$ Submit this completion report to PhysioNet below (for MIMIC access)
- MIMIC Access: The people who collected the data (LCP, here at MIT) require people to sign up to make sure they only share the data with academic researchers working with professors

(https://mimic.physionet.org/gettingstarted/access)

- Please use your MIT email address username as your PhysioNetWorks username.
- One of the steps will require you to fill out a Data Use Agreement (DUA) where you will be asked for:
 - A reference name. Write Peter Szolovits.
 - If asked for a phone number contact info, put
 - The general research area for which the data will be used: Write "Fair ML for Health"

TODOs for mentor

- Get their gmail & add them to the MEDG google drive (important for accessing the weekly group meeting doc)
 - Send their gmail to Willie to add to the MEDG-active-reading-group mailing list
- Add them to the MEDG people spreadsheet: <u>https://docs.google.com/spreadsheets/d/</u>
- Once they do their CITI training, add it to the "CITI" tab of the MEDG people spreadsheet
- [optional] If they need MIMIC (and to the training), I'll need to create a role for them in the psql database. let me know if we need that

 Explain to them how the servers work (e.g. needing to hop through login, whether you have suggested shortcuts for avoiding hat such as .ssh/config or AnyConnect or something).

I drew this double for my UROP
 MEDG servers
 I agia/jump
 Inight safe
 Antonia
 An