## Write about a time you were managed.

In the summer of 2017 I interned at MIT Lincoln Laboratory. The lab is relatively small, consisting of about 5,000 staff. As a result, the organizational chart is fairly straightforward. Technically speaking, the lab is run by MIT. While they have the authority in running the lab, they do not intervene much and the connection is not very strong. Still, the president, provost, and vice president for research at MIT are at the top of the chart for Lincoln Laboratory. The next tier has three very high level managers, the directory, associate director, and assistant director for operations. During my time at the lab, I was able to speak directly to Director Eric Evans and he gave a talk about his early experiences at the lab. He was originally an engineer and quite involved with technical experiments. The next level of the chart contains the chief technology officer, excutive officer, assistant to director, safety & program support, communications and community outreach, and capital projects. Next, the managers are broken up into 8 equal divisions (Numbered 3-10) by technical specialty. Each division is further divided into some number of groups again by technical specialty. Each division and group has a leader and assistant leader, as well as a few other support staff, followed by many scientists and engineers who would be considered the bottom of the chart. All the way past the bottom of the chart, you have the interns who are each supervised, or mentored by a staff member. I was supervised by Robert Morrison of Group 2, Division 9.

The lab is very scientific and experimental in nature. Long term plans would probably be considered on the order of 5 years and would consist of something like completing a large project such as building a new satellite or developing a prototype for a new technology. Short term plans take place on the order of a few months and consist of, for example, running experiments and building small scale prototypes for a new technology. That being said, it is a complex system and the time scale for a project depends greatly on the type of technology. I was working on a radar project which had already

seen a lot of development for a year or two before my arrival and I suspect will continue for a few more years. However one interesting part of the project was that it was planned by staff who were senior, but not managerial. Speaking with the group leader about that fact, he said it was useful to have staff who would seek out their own ideas and pursue them independently. This is probably much more common in experimental places like Lincoln Lab where the business is innovation and productive output is hard to measure.

Finally to my own experiences with my direct supervisor, the one word that best describes it is hands off. At the beginning of the summer I was briefed on the problem that was being encountered and given a short tutorial on how the system we were using worked. My mentor passed along the code and my first task was to go through it and understand it. When I had finished that and had a handle on everything, I was to either fix or at least understand the cause of an issue he observed. We set up weekly meetings for me to report progress and findings. After I had resolved the specific issue the rest of my work was very open ended. My job now was basically to find, explore, or create different algorithms for the problem at hand. I independently designed experiments and coordinated their execution with other members of the group. I used the results of the experiments to modify my algorithms and so on. Every week we would discuss what I found and possible new directions to go in, but I was never really assigned a task until I had to make a final presentation. A couple weeks before the end of my time there, my mentor went through a performance review with me and also gave me to opportunity to provide him feedback. This is a simple implementation of a control scheme where both of our performances were measured so hopefully we could change something. Thankfully, it was all positive feedback in both directions. Ultimately, I believe the laid back style was more difficult than being told directly what to do, but more rewarding since I was able to exercise some creative freedom. From talking to other staff around the lab, I do not think this was an exception but rather the rule. When exploring new possibilities in technology I think this style of management is superior.