Creativity+ Interview Transcript: ***Aleksander Hübert****, 19C*

Introduction: So my name is Aleksander and I graduated from Emory in 2019 with a double degree in quantitative sciences and math.

Question 1: Can you tell us a little bit about your journey (and where your headspace was at) from your Emory graduation to your current role?

Response: From Emory, I kind of had this strange journey, I guess, this year. So at Emory, I spent my time studying math, and I was involved in the arts and stuff like that. And those kinds of things helped push me in the direction to go study math some more because it's a very creative kind of endeavor. It doesn't feel that way to some people, but I think when you kind of get into it, you've got to creatively solve problems and stuff. And so, since I left Emory, I've been studying at the London School of Economics, and I've had classes that involved all sorts of applications of math in the real world. So we've been looking at networks and how diseases and people travel through networks, and all this kind of stuff. And alongside this kind of creative problem solving element, there's also been this like side of how you show these things. And so that's also been a really interesting part of this journey, as I've spent a lot of time trying to figure out how to show the ideas behind the solutions to the problems. I had to write a dissertation for this program. And mine was on a sort of theoretical computer science topic, which involves this thing called cellular automata, which is basically a grid of squares where each score is either on or off. And so in my paper, I had to try and find out a way to showcase these grids in a way that made sense to the reader and also kind of showcased the change over time. And so whether it was trying to decide what colors to use to show that this was an earlier square and this was a later square, what order to put them in, was really important. And I think, kind of my background and, you know, helping with art showcases and stuff like that, has helped me kind of hone my skills, trying to showcase other things as well. So it's kind of how I've... where I've ended up since Emory.

Question 2: What were things that were unplanned/unexpected but meaningful to your growth?

Response: Most of this year has been pretty unplanned. But beyond that, when I first arrived in London, when I started to get to know some of my fellow students in the math program, it turned out that a lot of us had kind of this keen interest in music, which I thought was really fun. And so after class, we'd go get dinner and stuff like that and instead of talking about math sometimes we would just talk about music. And so I had one friend who would make beats in his free time. And I had another friend that played piano and stuff like that. And so it was really fun to kind of see that even in this kind of math world, there's a lot of people that are interested in the arts just for the sake of the arts as well. So math is also a creative endeavor. There's also a lot of students and mathematicians that are interested in art for the sake of art. And so there's actually been times where we've gotten together and we've played music together and tried to make some songs. Some have gone better than others. But that was kind of an unexpected, but really fun kind of part of this program, was meeting so many people that were interested in music as well as math.

Question 3: What connection does math and music have?

Response: I think one thing that ties in really well together is music has like these sets of rules, similar to the way that math does. So if you're working in a specific key, two notes next to each other might sound horrible and two notes will sound really good. And there's specific rules that govern when they sound good and when they sound bad. And it's kind of the same thing in math, you have these rules that kind of govern what you can and can't do. You might get a really awful result if you use the wrong number, the wrong concept here. And I think that that definitely plays into it. I know that also, recently there was a pair of lawyer, computer science people that wrote a program to make every possible melody. And their goal was to show that there's only a finite number of melodies, so people owning these melodies doesn't make any sense. And they used math to kind of come up with every possible combination of melodies they could. And so I thought that was kind of a cool application of math and computer science in this very musical realm. So I think there's a lot of connections there.

Question 4: What advice do you have for your younger self?

Response: There's kind of two things that sound opposite, but I think work well together. It's that you really have time to do everything you want to do, but you also don't need to do everything. Because when I was starting at Emory, I tried to do too much because most people do. But I wasn't doing the things that I was most interested in sometimes. And that was eating into time that I could be spending doing things that I actually wanted to do. And so just, you know, allowing yourself to pare down or put your time more into one thing versus another, I think is really important. Earlier in my Emory career, I didn't really spend as much time doing music. But in the end, towards graduation, I had a radio show with some friends and stuff like that, and realized that that was more of something that I was interested in. So I guess if I could go back now, it's like, you know, take the classes that you find interesting. Don't take the class that isn't as interesting, but you think will help you get a job, necessarily. Because honestly the classes you take are somewhat important, but I think that, you know, for yourself, betterment is also important. I was very happy I took courses in film. And then I took a graphic design course, which was a lot of fun, instead of taking the extra math classes, and it hasn't really set me back at all because I could just study it here or, you know, look at it on my own.

In my senior year, for example, there's a couple of courses in the math department where the first semester in the fall and the second semester in spring that kind of went together. So I took the first semester course and didn't do great in it. And I didn't need to take this second semester of it. And I was struggling really hard. *Do I take the second semester in this math course that I didn't really enjoy? Or do I take graphic design?* And I took graphic design. That was the best choice ever because, *Why did I need to struggle through this class I didn't particularly enjoy*? And it was a really good choice. Allowing yourself to take a breather I think is good, because you're still, you know, if you're really chugging away with something, it goes on in the back of your head. And so that's important, too.

When I arrived at Emory, I wanted to be a physics major. And I took the first semester physics and you know, it was pretty good. And then I tried to get into the second semester course, and it was full. So I emailed the professor, and eventually, you know, add/drop/swap ended and I wasn't in the physics

class. And I ended up taking some computer science and some Russian and all kinds of different things. And I think allowing myself to not get bogged down in that one class, like in missing that one class and needing to do the physics, allowed me to take more math and find out what I was interested in. But it also let me take the Intro to Film class because that was actually the class I replaced physics with, and that was really good because that kind of opened the doors to me taking more film classes down the line. I ended up taking screenwriting and digital filmmaking, which were all things that were interesting to me and I think helped me later on because a lot of what math and stuff in computer sciences, too, is presenting your ideas. And having taken those classes helped me kind of refine my presenting skills. And there's a lot of stuff that you learn about in the film classes that you wouldn't understand if you didn't take film. The theory behind film helped me become better at expressing my ideas and stuff like that. And it was stressful not knowing exactly what I was going to do after that first semester because I'd come in knowing like, *Oh, I was going to be a physicist. That's what I wanted to do*. And allowing myself to not get bogged down was really, really good for me because I think that it widened my perspective a lot. Another thing that I did too, was I ended up taking some linguistics classes. And for the quantitative sciences major at Emory, you need to sort of track, and linguistics became my track, and so I learned a lot about languages that I had no idea about before. I've learned all sorts of facts about human language that I share at parties and things, and there's kind of beyond the academic. It's made me a little bit more well-rounded, I guess, and allowed me to communicate better. But it was stressful, it definitely was not knowing what I wanted or was going into in the beginning but, you know, it always works out in the end and I had good advisors and stuff like that. Not getting stressed out about missing that one class or not taking this one class is, I think, important because I didn't really need the second semester physics. Where I am now is not changed because of that.