

The ShermCast: Smarty Pill, Generate, and Vibes (S5E4)

In this week's episode, hosts Joe Blanchet and Sam Yip talk with Sherm and Generate veterans Thomas, Aya, and Anuj about their work on the venture Smarty Pill and how their time in Generate and the Sherman Center has impacted them. We talk about "Late Night Sherm" moments, Generate's best outreach tactics, and the good vibes of The Sherman Center.

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Joe: Welcome back to season 5 of the ShermCast. So far, we've had so much fun talking all about entrepreneurship and learning more about what it means to be an entrepreneur at Northeastern and in Boston. If you're new to the ShermCast, welcome and be sure to take a listen to our previous episodes from season 5 and other seasons too. If you've listened before, welcome back, we hope you love these episodes as much as we do. So let's jump into today's episode.

Sam: Episode 4! The Season's already halfway over and it's moving so fast, but I had so much fun on this episode particularly because we got to talk to a few current Northeastern students, which is always cool. We were lucky enough to talk to one of Generate's older project teams who worked on Smarty Pill, a smart and seamless pill management system which ensures users to take their medication properly.

Joe: Yeah Sam, I loved getting the chance to talk to Thomas, Aya and Anuj, they are a few of some of the longest-standing members in the Sherm and Generate. So they definitely had some really funny stories. It was seriously cool to talk to them all about how they join Generate, some of the behind the scenes of working on a Generate team too. Thomas, Aya and Anuj are really great people, students, team members, and it was great to hear about their roles in Generate and the Sherman Center and how those roles have grown. So keep listening to hear more from Thomas, Anuj and Aya about Smarty Pill, Generate and the Sherman Center.

Sam: Joe, it's crazy, this season has really flown by but we're back in the studio. Thank you to WRBB Studios and their podcast director Susanna, for their awesome audio equipment and space, you know, we've loved being able to come in and record in-person with guests. But today, I'm especially excited because we get to talk about one of my favorite organizations on campus, Generate, and more specifically about one of their ventures.

Joe: Yeah Sam, when I first joined the ShermCast and the Sherman Center earlier this semester, I was learning about all the different programs within the Sherman Center and I was particularly interested in Generate for those that don't know, Generate is the only student lead product development organization on

campus, which is pretty cool. You can find out more about Generate on episode 4 from last season. Where Izzy and Sam talked to Nick Kaffeine, the executive director at the time, but for now, I want to welcome Generate's software director and co-founder of Smarty Pill, Thomas. Welcome to the ShermCast.

Thomas: Awesome. Thanks so much for having me guys.

Sam: We're so glad that you were able to get onto today's podcast but before we get into Smarty Pill and Generate, Thomas, you're a fifth year now?

Thomas: Yeah I am.

Sam: And you're studying?

Thomas: Computer Engineering and Computer Science.

Sam: Awesome.

Joe: Thomas, why don't you go ahead and introduce everything else that you do.

Thomas: Yeah, yeah, absolutely. I'll start with a little bit with my background. I grew up in Mass and I'm one of those, "I live 30 minutes outside Boston, but I tell most people I'm from Boston" guys. So I pretty much wanted to move to Boston for college. I knew I wanted to go into engineering, so I came to Northeastern, started as an electrical engineer and computer engineer, and after my first Co-op, pretty much decided I didn't want to do that and I wanted to write more code. So now I'm Computer Engineering and Computer Science. But yeah, I mentioned that I'm from Boston, so obviously a huge Boston sports fan and I play sports in my free time, I'm on the club golf team and the club roller hockey team. So my first Co-op I worked for the Baltimore Orioles, which was especially cool given my background on being a bit of a baseball nerd. And it also happened to be my first real, like, computer science software experience. So that was phenomenal. So after my first co-op, I came back to Boston, I was obviously still involved with Generate. I've been involved with Generate my whole time at Northeastern, so this is my 5th Year and I was applying to second co-ops where I wasn't really sure what I wanted to do. I wanted to do something in software, but my former boss with the O's had basically suggested this company named Hubspot in Boston, great software company. He had worked there. I was like, alright, cool. I'll go for it, ended up getting a co-op there in January 2020, and I've been working there ever since it's where I'm going to work after school. And it's a phenomenal company. So I do a blend between information security and cybersecurity there, where our teams sorta manages a lot of the AWS infrastructure. So pretty, nerdy back-end engineering stuff, but that's honestly what I'm into, so it's worked out great.

Joe: I hope our audience listening right now is as excited as we are to have you on the show today, Thomas.

Sam: I feel like your journey is also kind of what a Northeastern student dreams of, when they go on a co-op, especially with something that they'll really passionate about and then they go another co-op and they end up getting an offer or whatever and then they end up working there after graduation, which is awesome.

Thomas: Yeah it's worked out great and I kind of left out two of the biggest things that I do currently: Generate and Smarty Pill. Presumably because we'll get into those in a little bit, I imagine.

Joe: Yes, we definitely will.

Sam: So Thomas every episode we start off with the same question. What does entrepreneurship mean to you?

Thomas: Yeah, so this is a great question and honestly, I'm realizing, I'm a little bit hypocritical because as the software director in Generate, this is a question that I ask everyone that I interview and I never fully realized how it sort of puts you on the spot cause it's a tough thing to define. But at this point for me, entrepreneurship in general is really just applying some skill set that you have or you've acquired to make the world a better place. Now, a lot of times when I ask this question to engineering students, they say, "Oh, entrepreneurship is building something or doing some product development or prototyping" and that's all true. But for me, it sort of has this added twist where it's like, to be an entrepreneur to really take on that lifestyle and go after something that you may have no basis to trust is gonna be fruitful for you or is going to be successful or whatever. You need to really believe that what you're doing is making the world a better place and is improving your life, or somebody else's life. And then in turn, that's usually where, you know, exterior, external people recognize the value in what you're doing and it becomes sort of that success story that you think of, when you think of an entrepreneurs.

Joe: That's a new definition that I've heard. And honestly, that is going to stick with me forever.

Sam: Yeah we've had a lot of definitions over these past few episodes and while we've loved every definition because everybody, entrepreneurship means something different to everybody. That is definitely a unique perspective, which we really appreciate.

Joe: Yeah I particularly like that part about making the world a better place and believing in what you're doing. Because at the end of the day, you are taking risks and you gotta really, really be passionate about what you're doing.

Sam: So you mentioned, you were in Generate since your first semester, which is apparently very rare, according to Ted. I remember talking to Ted about, you know, "Oh yeah, we're gonna have Thomas on for an episode on the ShermCast." And he was like "Oh that's great, Thomas has been like in Generate since his freshman year and then he was like "that's like pretty rare." But you know, how did you get involved in Generate? You know, why did you join?

Thomas: Yeah so this is actually a story that I really like and slight correction, I joined my second semester freshman year. So first semester, I was like, typical, not typical, but sort of typical freshman. I wasn't really in clubs and I joined the club roller hockey team just because something that was cool to me, but I wasn't in any like, academic base clubs, right? So, one day, probably about 2 weeks, after I'd been at school, right? My mom texted me and my mom pretty much my whole life, I wouldn't consider her a helicopter parent. Some people may, she likes to be involved with whatever I'm up to, right? So she texted me this like she's like, "Hey, I'm in the Northeastern parents Facebook group." I'm like "obviously", "and I saw this ad for this club called Generate, I checked it out, its student -led, its product development." Like I had done some product development stuff in high school. She's like "It looks so cool. The website's

awesome, like check it out. It seems like they're interviewing right now and they have applications open.” So I checked it out, filled out the Google forms, sent off an application. And that was basically that. So, like a week later, two weeks later. I get an email from the executive director at the time, Maddy Leger, it was basically like, you know, come in, schedule an interview, we'd love to talk to you about the role and I was sort of like, “well, I thought this was just a student club. I didn't really understand there was going to be like a formal interview.” So I get my shirt and tie on everything, I go down and I'm this freshman person. And I'm in the Sherm with like, two junior/senior, two upperclassmen in the club, you know, obviously, they're in t-shirts and jeans and whatever. They're like, “Ok this guy put on a shirt and tie on for a Generate interview.” There's like 20 in the club at this point it's very, very small. So I don't know, I guess whatever we talked about, I don't even remember to this day. But whatever we talked about, must have been somewhat good enough for them to have the confidence to put me on a team. And honestly, the rest is sort of history from there. So a question, I get a lot of times is like, okay, well it's sort of this semester based product development where you work on different things, every semester. Why have you done it every semester? Why do you continue doing it? It's a lot of work like all the stuff and since that first semester, for me it's really been much more about the community. You guys know you're in and around the Sherman Center all the time, right? The work we do is phenomenal, as an engineering student who has been in the engineering interviews and stuff. I've never talked about classwork. I only talk about technical Hands-On stuff I did through Generate. So for me, it's really bad about the community. It's been about having a place on campus to go hang out, do work, have upperclassmen, especially in my earlier semesters, where you can kinda reach out to for mentorship, things like that. And I like to think at this point, I assume more of that mentor role than mentee role. But really having that group of people on campus, it's one of the best groups of people I've run into so far. So that's what keeps me coming back, I think. But it was a targeted Facebook ad that got me interested.

Joe: Yeah, that's like the perfect definition of what the Sherman Center is and for anybody listening, if you're interested in joining like stop by come, see what that community is like. It's just a great place to be, also I think my mom is going to feel super validated when she listens to this and hears about what your mom has done. Because I hear about the Northeastern Facebook page like every other week. So hi mom.

Sam: You owe it all to your mom, honesty.

Thomas: I really do. I really do.

Sam: I feel like every episode so far, we've talked about the Sherman Community because it is exactly what you said, like, it...

Joe: It stands out. So Thomas, we've taken a look at this Smarty Pill website, but we'd really like to hear from you. What is Smarty Pill?

Thomas: Yeah sure. So Smarty Pill is a state-of-the-art pill dispenser that alleviates stress by managing and dispensing your medication. So, at its core it really is the device that you see on the website, right? It's an in-home device. It's a personal assistant of sorts where you will basically fill all your prescriptions into the device and have the utmost confidence that the device will administer your prescriptions at the right time, ensure that you're notified and reminded, ensure that your loved ones are notified that you're taking your prescriptions at the right time, even though they may be two thousand miles away across the

country and ultimately, provide that piece of mind that you are staying adherent to your medication and your prescription scheduling.

Sam: That's awesome, I wish I had something like Smarty Pill when I was younger, because I always forgot to take my vitamins or whatever pills I was taking. My mom would always have to remind me and I know for sure she would probably really appreciate if we had something like this in our house.

Thomas: Yeah, absolutely. And you'd be shocked, I know I was personally shocked to hear some of the numbers around how many people take medications everyday and how many people rely on their medications for everyday things that you don't normally think about, like I think the number is something like seventy million people in the US alone take more than three medications a day. So you can imagine the process of counting and sorting those every time you get a new prescription, putting them into those seven days a week pill boxes every single day or every Sunday or what not, whatever your routine is. It can get very tedious and especially as you grow older and you may start to have some minor cognitive impairments or whatever. It can become very difficult and it can become hard on family members to trust that you're okay to take care of that on your own. So that's really the target user or the target market, the end-user that we have in mind while we're developing. But yeah. People of all shapes and sizes, ages, struggle with this day-to-day process. So solving for everybody is really what we're going after.

Joe: Yeah, so one of the things that stood out to me on, looking through the website and just reading about Smarty Pill is that it says it ensures you're taking the right pills, at the right time. So based on that, I take that as you can have different pills that come out at different times. Is that right?

Thomas: Yeah. That's absolutely correct. The plan right now with our current prototype is to support eight medications, eight unique medications where the process for filling those is basically you have your whole pill bottle with the entire prescription. You empty it all into the device. The device keeps everything sorted, it keeps track of unique schedules for each of the medications that it's sort of handling at the same time. So another layer of that is like, if two people want to share the device and they each have four prescriptions, it'll work for that too. It'll basically be able to understand when each one needs to be taken. Understand which ones need to be taken at the same time, which ones need to be taken with food, before food, in the morning, at night, all that different, all those different levels of customisation that go along with prescription management. And ideally handle all that for you and ultimately let you know when it's time to take the pills.

Joe: That is really impressive, I'm kinda blown away by that.

Sam: Especially something like taking pills is such a serious and like potentially dangerous.

Joe: It seems trivial, but when you break it down like it's a lot more complex than it appears. But Thomas, how did you get involved with Smarty Pill?

Thomas: Yeah, so I was actually not involved with Smarty Pill before they were a Generate client. So let's see this was the fall of 2019. It was my third semester in Generate. Smarty Pill was chosen as a client. They sort of were a project that had been ongoing for a little bit. Basically started as a Cornerstone of Engineering project, which is for anybody listening who is unfamiliar with the Northeastern engineering curriculum, it is a freshman year class that everybody takes. And it's basically, teach you a little bit about

this, a little bit about that and help you ultimately decide which sector of engineering you're most interested in. So, you kind of do a little bit of everything and it culminates in like an end of semester, end of year project. So this was the project for my three other co-founders and they continued developing it for a little bit. And then they decided, you know, they had these pretty large engineering hurdles, especially on the software side that they really hadn't attempted to tackle. And they came to Generate, which that's exactly what Generates for its, for providing entrepreneurial engineering support, for many times, student-led ventures, who for whatever reason, don't have the resources, or the means to tackle those on their own. And this was an exciting client coming in, it had a little bit of a buzz around it because they had a software team. But they all also had a hardware team, so Generate is a build studio with both hardware and software support. But at the time, I mean, I was on the first software team that Generate ever had, that was purely software. And then I was on a hardware team because for a semester, there were no software clients. So this really was maybe the 4th software client that Generate had taken on and the first one that had two teams. So like I said, they'd been working on it for a little bit. They basically came in with a few prototypes, one from Cornerstone, one from the young makers competition that they went to in China, you can read up about that on our website and they came to Generate and they said, "hey, here's our physical prototype. It's a standalone prototype. It does this. We need it to do this. We need it to," I believe the specific hardware challenge they were trying to get support with is dispensing pills in any shape and size. You don't want your users to have to be measuring their pills and telling the device, what size the pills are, which sounds crazy but competitors actually do require that. So, that is what I was working on, I was a build studio engineer on the team. And we were really designing sort of the first iteration of the supporting infrastructure for a single Smarty Pill but also for like a bunch of Smarty Pills, right? So a bunch of devices to be in different people's homes and to be talking to a central location where we could centralize all of the data and protect it all in the same secure ways because the end of the day, it's sensitive. It's sensitive information and also enable all the devices to work all the time, enable us to monitor when they're not working and do different things like that. So, coming into the product at that point in like the product development life cycle, as I was seeing it, was completely different from my other three co-founders where they had been sort of spinning the tires on the hardware side of the product, on the device board and everything that low-level software for like a year and a half or so. They hadn't really tackled this problem of the supporting infrastructure at all. So I had a bit of a unique perspective there and honestly compared to and I don't want to belittle any of the projects I had worked on before, but this is my third Generate project. And this definitely had the most clear-cut, like added value to society and value in of itself that it really, really, was intriguing to me to work on and quite frankly, like 3 months of working on was just not enough. So I reached out to the team afterwards, or they reached out to me, however, it worked. We basically had a mutual understanding that like, I was super into it, I had been writing a lot of software, I wanted to continue and they welcomed me with open arms. So we ended up working with Scout. If any, if you guys are familiar with Scout, they basically helped us to find a brand to find a feel for our product and our company. And what did we actually want users to be thinking as they were interacting with it. How did they want to view, not just the device but the company as a whole, all that stuff which is critical to going to a market, any Market. But especially important for a market that is stereotypically stubborn when it comes to new technology. If you guys have parents or grandparents, who don't necessarily love using their phones or using computers. That is unfortunately like the stereotype and the stigma for that target market, so the brand was super important. We worked on that for a semester, which was awesome. Shout-out Scout, they're amazing. They did some really cool stuff, our whole website designed by Scout. And then we've also been working with IDEA a little bit since

then, trying to refine that go-to-market strategy. We're working with HSE, which is the Health Sciences Entrepreneurship organization. They basically supply mentors. And we work with the mentors to talk about what makes us different, where, how are we trying to break into the market? How big is the market? All that kind of stuff. So, since Generate, I've really been focusing on a lot of non-technical aspects of the company, which I didn't fully expect. But I've really enjoyed.

Joe: That is a great overview of everything you guys are doing. And honestly, super high level, I think one of the most impressive things is that you guys are doing this all as students. You have classes, you've been on co-op and still, this is like a staple in what you're working on in your college career so that's, that's really impressive. I think, also, one of the things that stood out is that this stemmed from one of our engineering classes, that everybody takes here at Northeastern, you know, and, and now it's so much more than just like a final project for a class but it's a business and something that is going to make the world better.

Sam: I mean it's exactly like your definition of entrepreneurship when you're like you're trying to make the world a better place and that's exactly what Smarty Pill is doing, which is awesome.

Joe: So what was it like, getting to work with a team on this product and how did you guys put all of your skills and, and ideas and perspectives together?

Thomas: Yeah, definitely. So, working on the Generate team was sort of very similar to a lot of, like a lot of other Generate teams, right? Everything that you would imagine is great about working in a team of six to eight engineer's on a product for a semester at a time. That like, none of the engineer's need to be working on, but they choose to be working on. Like you really find a group of very passionate people who have wildly different backgrounds. And all have some level of skill and expertise, that you get basically professional experience from a student-led organization. So from that aspect, it was awesome. Every Generate team I've worked on has been phenomenal, but working on a team of four co-founders. I've found, especially as I've gotten more senior in the entrepreneurial ecosystem at Northeastern, is that it's pretty rare to have a student-led venture with more than like one or two co-founders, so the fact that my three co-founders and myself now have really stuck with it and continued to work on it. And ideate on the problem and the product for so long, has been very, very unique just in of itself. Now, there's also this notion of like, I'm gonna, I'm gonna totally botch this, but one of the Tuesday speaker Series last year, I forget, I don't recall the guy's name, he was basically talking about how to form a team that is successful and the different things you need to look for. You need a storyteller, you need somebody who is a visionary, somebody who is really like nitty-gritty into the engineering of it and then there was, there was one other quality, but the more, the point of the story, the moral of the story is that you need different perspectives to have a successful team and until you find that team, you're gonna be lacking in one of them.

Sam: From all your, you know, experiences and learning aspects from Smarty Pill and from Generate, how does that, you know, apply to your co-op's, classes or just in general your knowledge at Northeastern.

Thomas: Yeah absolutely. So I'll sorta hon in on my experiences with Generate, just because that was sort of what I had on my plate and on my resume, if you will, before I went into my first, like real job

interview for co-Op and stuff like that. And I think I mentioned this earlier, but in, so I've applied, I've been on three co-Ops, right? One of them was a return so I didn't end up really doing any interviews or anything, for my first one I probably interviewed with like six or seven companies for my second one. I think I only interviewed with two but still that's eight or nine interviews that I've done. I don't know and no shade. I don't know that I've ever talked about experiences from class, which sounds weird cause like we're students so you assume that you get all this great experience from class, which is true, you really do. But as far as in the workplace, what's expected of you, especially as an engineer. So much of that is about how you work with other people and how you communicate and how you function as a member of a bigger team, working towards like, a bigger goal. And in Generate, you learn that through Hands-On technical experience, but you also learn it through like just being on a team, right? Having a Project Lead, who's a quote on quote manager, but is also a junior in college and is managing classes and everything. So you get both perspectives where like, you're expected to attend team meetings and communicate to the people you're working with and collaborate on something. But you also kind of understand that like everyone is going through that at the same time. So from that perspective, it's sort of been, it's been the most valuable for Co-Op like it really is almost a one-to-one replica on a Generate team versus how I've at least worked on Co-op.

Joe: And this is stuff that like they don't teach us in classes, you know, like we're too focused on the math and science to worry about how to communicate but that's the key to being successful in interviews or on jobs. That's what employers want to see. It seems like you've taken all of your experiences and taken all these pieces and put them together to try to figure out what works for you. And whether you're an engineer or you're an entrepreneur, you see yourself as an entrepreneur. These are the type of skills that like will help you to be successful and happy, you know.

Thomas: Hopefully, and the happiness part is much more important than the success part,

Joe: I think success is happiness. Happiness isn't always success, but you touched on something that I kind of want to build on where, what are your expectations for Smarty Pill at this point. Like, where you guys headed? What's the final product looking like?

Thomas: Yeah, for sure. So, one thing that I think we learned working with Generate that was new to me because I was new to the project. Is that building a medical device that people can like 100% rely on to dispense their medication, and basically give them access to and reminders about the things that are keeping them healthy. That's a huge task. That's a much bigger task than a Cornerstone of Engineering project, right? So right now, we're working on actually Smarty Pill as our Capstone. So we have a team of mechanical engineers working on what we hope to be one of our final prototypes or the final big version of our prototype and we also have a team, which I'm on, of electrical and computer engineers who are working on really building some scalable software that can support a fleet of Smarty Pill devices. So we have, we have working prototypes, we have three or four working prototypes of like, this device sits on the table and dispenses very reliably when we press this button on the computer to dispense, but we really don't have a super strong and secure infrastructure for like telling, letting a device reach out to our backend and say, "hey, when are my next dispense events for every single medication, that's on the device" and "oh, this one is like a morning prescription, and I don't wake up till like, 8 on Tuesdays, but on Thursdays and Fridays, I'm out of the house at 6. So make sure you get that." So handling all of those like, edge cases and really, making something that's more professional and closer to like being able to be

in the market, right? Being able to just like ship it off to somebody's house and have it just work all the time. That's what we're working on right now, for Capstone which for me has been super exciting. I alluded to this a little bit before, but since being on the Generate team, I haven't done too personally, I haven't done too much like coding for Smarty Pill. I haven't done too much like technical contributing. I mean a little bit, but not as much as I personally would like to add like a software engineer, right? So having these four months to really like be heads down working on, what is hopefully going to be our final prototype, has been awesome. So I think right now, like looking further down the road. We're working with HSE as our like primary sort of mentor group. They're helping us a ton with, what does the medical device market actually look like, what are all the barriers? What certifications do you need? How do you prove that you're hipaa-compliant? How do you get FDA certifications? Whether it's class 1, class 2, class 3? What level of like guarantee do you need to get those all these different things that we couldn't have been expected to really know as students but we're starting to learn now and an engineer for. That's what we're focusing on now. It's probably what we'll be focusing on for the foreseeable future.

Joe: My first Co-op was working at a medical device company and I worked heavily on the documentation process for their class 3 FDA submission and I was blown away by like everything that needed to go into it. By the end of it we submitted a 66,000 page document.

Thomas: Wow.

Joe: I don't think Smarty Pill's going to be class three. I don't think you'll have to encounter all of that but it was crazy. Crazy what goes into this stuff. Also you called them "dispense events", I don't know if that's something you guys use. But that's sick.

Thomas: I didn't even I didn't even notice.

Joe: Yeah I was like "He's got to trademark that."

Sam: I feel like those are the little things that nobody, as consumers. We don't think about that. Like now as like the founder and like the builder and the creator of it. You are now thinking about all the little things that I actually have to go into it. And then again, that's like another thing that as students, we don't learn about in classes. Like there are all these things that you have to think about when you're creating a product or, you know, building a product or whatever it is.

Thomas: Yeah absolutely. And Joe, you brought up a great point about the sheer size and the amount of work that needs to go in for a lot of these processes. So from a business standpoint, I think we're definitely hoping after probably graduation because three of us graduate in May, one of us is sort of staying on for a little bit of Master's work. But we're hoping to expand our team, you kind of need to, you can't write 66 thousand pages with four people who aren't writer's for example, right? So we're definitely hoping to expand our team. I don't have a, I don't think we have a great idea of like, this is our launch date. Right now it's ASAP. That's the goal and that's probably going to be the goal for a little while.

Sam: So we've talked a lot about Smarty Pill, we've talked a lot about Generate and your time as a Software Engineer and now you are the Software Director, which is awesome. But what do you do as a software director?

Thomas: Yeah. Absolutely. So I'm going to be completely honest. When I went through the application process. I wasn't sure. I didn't really know what the software director did but now having been in the role since June, Julyish, and I have a much clearer idea of what a management member does. And I was alluding to this a little bit before talking about sort of being on a management team, being a co-founder like what is the difference. And now, I've really come to realize, especially with Generate, an organization that's trying to grow as quick as possible. Not as quick as possible but is growing all, I would say as quick as it possibly can like it's growing rapidly rapidly rapidly. The main goal for the management team is ensuring that you hire people and enable people who will do a great job and also grow as individuals. Like that's the huge part of it for Generate is that it's student-run. It's student lead. We talked earlier, like when I joined I knew nothing, when I was in it, I had been in Generate for like a year and a half. I still felt like I knew next to nothing still now, I learn new things every single day just being around the Sherm, right? So allowing people to really grow in that role and set them up well for whatever they want to do, is the goal. The function of meeting that goal and the things that we really focus on, as a management team and as Software Director is getting the opportunity to talk to people, interview people, do outreach things where you kind of spread the word about Generate and you make sure that our applicant pool is as broad as possible, on new is cast wide so that you can really find, one, the best clients who have sort of the best products that have an opportunity to get the market and then two, sort of hand picking the right teams for those products so that the product grows and also, the team members grow.

Joe: We've talked a lot about a lot and that's great. That's what we're here to do. But Sam and I are also wondering what are your future plans looking like with Smarty Pill, with Generate, with graduation, coming up, what's coming up for you?

Sam: Like you mentioned that you are working in Infrastructure Security and like you obviously want to continue working on Smarty Pill and get it to, you know, market but are you hoping to or like planning on, like working at both Smarty Pill and HubSpot at the same time?

Thomas: Yeah, I definitely am. So I mentioned earlier, I'm going to be working at HubSpot full-time starting when I graduate May 7th. So I'll probably start like May 9th, I don't know it's basically like right afterwards, but one of the many great things about HubSpot as a company is that our customers are startups and their growing businesses, which Smarty Pill in my mind is hopefully a growing business, right? It is a start-up. It is sort of this new product, this new company that currently has no customers at some point down the road. We definitely want to grow our customer base, right? And HubSpot is very receptive to that. They're very aware. HubSpot was a start-up 10 years ago, right? So they know how it sort of goes and they're very very supportive of their employees, especially on the engineering side working both, right, full time 9 to 5, whatever the hours maybe in your role as a HubSpot, but also like they give you a free fully paid for platform of like all the HubSpot tools, which is very expensive. And they basically say like "yeah, this is your portal. This is our product. This is what you billed all day every day. If you have some application where you can use it, go ahead and use it." Like they're very supportive of people really trying to do their own thing on the side. I know a couple co-workers who are also founders of companies. Nobi, actually a Northeastern student is a founder of Nobi, also works at Hot Spot. He's been a great mentor for me. So yeah, my plans after graduation are to stay in the same role, sort of that I'm in now, I'm doing Infrastructure Security stuff and continuing to really sharpen my technical skills there. So I definitely want to stay there as long as I can. But yeah, I do plan on trying to do both as long as I can.

Joe: So in terms of Smarty Pill, I do want to ask. Is there anything that listeners can do to help whether they can donate or spread the word? What would you like to see from the audience?

Thomas: Yeah, so we're not currently really, I mean, if you want to donate, I'm sure we can get something set up to donate, but the big thing for me is follow us on social medias, like our Facebook page, go to our website subscribe to the email list that sort of like once we're getting closer to launch like we'll reach out, we'll definitely let you all know whatever you can do to help us out and whatever we can ultimately, do to help you out. So, I would say engage with the platforms that we have right now. And, and yeah, mostly just stay tuned.

Joe: Awesome. Is there any final thing you'd like to plug or shout out on social media? Where can they find you?

Thomas: Nothing, nothing crazy to plug. I feel like this whole episode, for the most part, has been a plug for the things that I love. My one would be Generate on campus, applications open in 2 weeks for lead positions. They open in 2 weeks for client positions, if we have any ventures out there, I'm pretty much in and around the Sherm most of the time. So if you ever want to, you know, talk about Generate, talk about Smarty Pill, anything, come find me down there. But yeah stay tuned for applications if you're interested in Generate, we'll be basically going through that for like the next 2 months or so.

Sam: Thomas, we love the message and the goal of Smarty Pill. We think the work that you and your team are doing is unbelievable because it's just like again, bizarre how students can create their own company and venture and make it a reality. And then, we're so glad that Generate and the Sherman Center were able to help, not only you, but Smarty Pill in this process, and we're definitely looking forward to the future Smarty Pill.

Thomas: Thank you. Thank you very much. And Sam and Joe, thanks so much for having me. What you guys are doing on the podcast is phenomenal. I'll definitely be sure to you know, spread the word about the ShermCast and yeah, thanks again so much for having me on.

Joe: Thank you Thomas. It was super great getting to hear from Thomas and we hope that everybody in the audience enjoyed that as well, but we're going to interrupt this episode real quick to just let you know that course registration is coming up on November 15th. If you're a Northeastern student and you're interested in learning more about product development, entrepreneurship or just want to get some hands-on experience. And you also need to fill in some electives within your course schedule. The Sherman Center is offering four different courses, customer-driven technical Innovation for engineers, engineering product design methodology, iterative product prototyping for engineers, and product development for engineers.

Sam: Make sure to head to the Sherman Center's website and Instagram to read the course descriptions and take note of the course numbers. We hope to see you in the spring!

Joe: Sam, this episode isn't actually over yet. We've got two more Northeastern students that work in the Sherman Center and in Generate I'd say they're some of the core members of our community here. So without further ado welcome to the ShermCast Aya and Anuj.

Anuj: I'm Anuj, I'm going on my fourth year in Electrical Engineering and increasingly getting ready to get out of here.

Aya: I'm Aya Aragon, I'm a fifth year, this is my last semester graduating in four and a half. Did I say I'm a bioengineering major? I'm a bioengineering student.

Sam: Awesome, welcome to the ShermCast! So for our listeners that are new, Aya was actually one of the co-host on our first season of the ShermCast. So she knows a little bit of the podcasting realm but welcome Anuj to maybe your first podcast? So exciting. So what does entrepreneurship mean to you guys?

Anuj: I guess I don't know, I've been like doing a lot of research at Northeastern and another University, I guess like one thing I've seen in research is just trying different things out. And it seems like entrepreneurship is like the next step above where it's like actually doing the things and like getting them into the real world.

Aya: Yeah, it's kind of like engineering honestly. It's a lot of problem solving, but one of the key differences between engineering and entrepreneurship, I think is entrepreneurship is a lot more people based. It kind of makes sense why the Sherman Center does engineering and entrepreneurship together, they are kind of two sides of the same kind coin I guess.

Sam: I would agree with that. I mean, I think a lot of people when they think of entrepreneurship, they don't think of engineering, which is why the Sherman Center is like so unique in a way and different. Because when people think of entrepreneurship they always think of business and not like the, you know, product development behind that or like the engineering behind that.

Joe: Speaking of developing a business. We talked to Thomas earlier, about Smarty Pill. And we'd love to hear from you guys about what your roles were within Smarty Pill. And what exactly did your roles entail?

Anuj: So we were both Build Studio Engineers on the hardware side. I was focused on the mechanical side. I was doing more the electrical side, I guess my role was mainly like, so we had this whole like power system and like electronics, we had like Raspberry Pi and like motors and like motor controllers. And then another role was just like doing this basic like prototype of like a firmware system in python, it gets like different pill schedules and then, like dispenses when you dispense a pill and controls the motors, for that.

Aya: Like Anuj just said, I was on the mechanical side, which is pretty interesting. Because one of the main features of Smarty Pill was that it could dispense pills of different sizes and different shapes. And if you ever think of something that like, dispenses something, so I think a Pez dispenser, a gumball machine, the Pez candies, and the gumballs are all the same size and shape. So, it was a pretty interesting engineering problem to figure out how to get something to dispense something of different sizes and shapes. It was kind of an insane project. We spent a lot more time ideating then we did building to be honest, it lead to some late-night engineering sessions in the Makerspace. I'm sure Anuj remembers, the night before showcase we hadn't put together our mechanical and electrical side. So we stayed in the Sherman Center until I think 3 or 4 in the morning and at some point I think our project lead, Megan. She just like collapsed onto the floor and they were like, what if we just Ubered home like the one mile from

here, can we Uber Eats something to the Sherm? Because I think we're actually losing our minds and needless to say, it didn't work by showcase which was the next evening, but I mean for one semester, I think we did a pretty good job.

Sam: I feel like that's one of the things that I always, like when I first got involved with the Sherman Center, I remember Ted like talking about like late-night Sherm's and like Izzy was a project lead at the time for Generate too. And she was talking about yeah, like she's had late night Sherm's as well. And I guess that's kind of one of the famous moments of a late night Sherm.

Anuj: Oh, I'm a permanent fixture of late-night Sherm.

Aya: I could never, my bedtime is 11:30. Sorry, yall.

Joe: I remember when I first joined the team, Ted was like, you now have 24/7 access to the Sherm. I was like, I hope I don't need it. So it sounds like your roles with Smarty Pill were pretty technical being on the mechanical team. But also, I'm curious about how entrepreneurship was woven into your roles.

Anuj: I think like Aya said, there's a lot of ideation. One thing I remember doing was just like gathering a bunch of data on different pill sizes and pill shapes to see, you know, like what we should design for and things like that. So like there's a lot of ideation where we say like, oh who are our users? What pills are they using? What medicines do they need and also just trying to figure out like how we can serve the most users at the same time as well.

Aya: Yeah, I think that's one of the main or it's one of the first things you have to consider whenever somebody comes to you with an engineering or an entrepreneurship problem. I remember, do you guys know Maddy Leger? She was the executive director of Generate, like I think five years ago or something and she once did like a lecture on like entrepreneurship problem-solving where she had an interview where somebody was like, "oh how would you build and design a kitchen?" And the first thing she asked was "well, who is the user of this kitchen? Are they really short? Are they in a wheelchair? Are they blind?" And that kind of really specific, what is the word for it? Really specific user and keeping that use case in mind is something that's really central to both engineering and entrepreneurship.

Joe: Yeah, I think that's one of the factors that's behind the scenes of engineering that people don't really think of like human factors, usability studies. You can make a really, really great product. But if it doesn't work for the person who needs it to work, then you don't have a great product. So it's interesting to hear that like naturally come up.

Aya: I feel like not thinking of your use case and your user beforehand is how you end up with really, not even bad, but just like useless products like have you guys ever seen those ads for like As Seen On TV things, for things like absolutely nobody needs. But somebody had to go and make it and manufacture it and they just didn't think about their user beforehand. It was just a waste of time and money.

Sam: I feel like those ideas are more just like they want to make something but like not that somebody can actually end up using.

Aya: Yeah. Engineering for the sake of engineering and not for the sake of a user.

Sam: So we know that Smarty Pill is a project that was a part of Generate. But how did you guys both get involved in Generate from the beginning?

Aya: I joined my freshman year where there was this thing called Generate labs and it existed for only one year, but it was supposed to be a freshman outreach program. And I think it's kind of reincarnated itself into Forge, but it had humble beginnings, as Generate Labs. We didn't do much but it was still really fun.

Anuj: And then I kind of joined in my second year. It was kind of interesting how I joined Generate. So, I was actually on the second floor of a curry student bathroom, where I saw a poster of Generate just plastered on the wall, and I was like "huh, this looks interesting" so then I applied to build studio and then I got in and then I'm here now.

Aya: I love that story. I remember, I forget who I was talking to about this. But when you join Generate like, you know, you give us your name and email blah blah. And the last question is, how did you hear about us? And you always put other and then you put like flyering in the Curry bathrooms.

Joe: What made you guys stick around in Generate?

Anuj: The vibes.

Aya: Yeah, good people. Good people in Generate.

Sam: After joining and then continuing to stay, how did you know, get to where you are now?

Aya: I feel like we just were really focused on the vibes of Generate and hey, they needed somebody to continue that. I mean, I like, I always like to think of, well before community team it was people experience and people experience would always say "we're the professional Vibe Checkers of Generate", which just seems like a really good role. So that's why at least I applied to become community director last year.

Anuj: Yeah and I'd say for similar reasons I also the founding semester of Forge, I was also the community director and I liked some of the things, so then I was like oh I'll apply to be community director of Generate now that that positions open and yeah, I think I really just liked the vibes of Generate. I'm trying my best to keep that going.

Joe: I love that talk about vibes.

Sam: But like it that kind of what you do as community director? Would you say that's your definition, like "vibe checking"?

Aya: Professional Vibe Checker.

Anuj: I mean I'd say like the role has changed a little bit from when Aya, when she was community director. She focused on like some external relations and like trying to get alumni relations going and like getting that back up. And then also just trying to keep the vibes going and then get a bunch of like fun events and things like that.

Aya: Yeah cause like when I was community director. It was honestly, I don't mean to toot my own horn or anything, but it was definitely an important role because that was the semester or one of the two semesters where we were online and things weren't happening in person. So you really had to get creative and try to get people to meet each other when you don't have the physical Sherman Center to be like that meeting place for everybody.

Joe: Yeah definitely. Being able to go into the Sherm everyday and then see Sam and work with Sam and talk with Ted and just like meet so many different people every day has been really cool. It's been a fun part of my semester this year, but can you guys talk a little bit about how Generate works, like do you get assigned to a team? Anuj, you talked about, like, applying to teams.

Anuj: So what really happens is that so I applied as like, so say I'm applying to build studio, in my case, I apply as a build studio hardware engineer, and then I apply, I go through an interview process, so that it's like, mostly behavioral, some of it's like technical and it's like, basic technical stuff. And then after that, get in and then basically, hardware team and like the project leads assign you to teams, like they basically pick and choose people that think their best fits their team and what generally has traditionally tried to do is, like, essentially pair up, you know, experienced engineers with inexperienced engineers. So when I got to Smarty Pill I was paired up with Chris Kinard, who is also a long time Generate member, but now an alumni. Basically they try to make those teams and then make sure, you know, we kind of got these de facto mentors coming into Generate especially if you're a second year or third year.

Aya: I feel like you did a pretty good job. I have nothing else to add to that.

Sam: I guess like every semester you guys just cycle through different teams of people.

Aya: Yep. One important thing that Generate tries to do is you don't want to, we don't want anybody to stick in the same role for too long. This is just so you come and get the most experience you can out of the org. You just don't have like the same person especially in like leadership positions, like you don't want the same person to be the leader of a team forever.

Joe: Aya, so quick question, in terms of the Sherman Center, how else are you involved?

Aya: Oh, nice lead-in. So I am currently the Sherman Center Chief of Staff, it's basically acting as an extension of Ted this semester because he's now director and we no longer have an assistant director anymore. So I've kind of just been helping him out, especially as we try to get the Sherman Center more, I don't want to say actual adult, cause I guess I'm actually an adult but a non-student workers, but I used to be on the work study team like every semester I wasn't on co-op I was on the work study team. I think I started out as like operations like doing the website and then I did like newsletter and then the podcast and something else, oh community lead. But yeah, now I'm involved as the Sherman Center, Chief of Staff. So you might see me replying to some emails if you guys ever email Ted.

Sam: Yeah Aya's also like in charge of the research opportunity that we plugged last week. So, that's pretty cool.

Joe: Do you want to talk a little bit about that?

Aya: Oh yes! So the Sherman Center is funding an undergraduate research opportunity, where we are trying to make the physical Sherman Center space in Hayden Hall more inclusive, because we've been working on redesigning our programming for a while, but there hasn't really been too much research into how a student center itself can be more inclusive, say of somebody with a physical disability, somebody who's neurodiverse, etc. So this research opportunity kind of digs into that, and one of the cool things about it is that, theoretically, whatever our researchers find can be applied to all of the other different student centers on campus.

Joe: That's awesome, and Sam and I talked about this on episode 1 with Ted, the Sherman Center Director. So if you're interested in helping out with this initiative, stop by the Sherman Center, email Aya or Ted. Yeah, get in touch, we'd love to work with you guys.

Sam: In terms of like working with Generate and the Sherman Center, this could be in the past, this could be currently. But like how did you guys balance and juggle like your workload with classes, with co-op and then just like doing extracurriculars as well?

Anuj: Sometimes I feel like I didn't. I mean there's a reason why late night Sherm exists, it's to balance your work and like get things done. I don't know, I think I really didn't think about balancing work. I really liked what Generate was like, going into Generate like even just being part of the community and also just doing some cool work. I really liked it. It's something I really didn't think about. Like it was mainly like Generate first and then, everything else so.

Aya: Yeah, it's easier to balance when Generate and the Sherman Center are filled with all of your friends. It's kind of hard to balance classes because, you know, you have to worry about getting a good grade and all of these deadlines, but when it comes to Generate and the Sherman Center, it's kind of just hanging out with people and especially when it comes to like, technical things. Like, for example, if you are studying for Thermo, every MechE has to take thermo right? Every other person in Generate has probably taken thermo and can help you with your homework. So that kind of impromptu mentorship I think, definitely helps when it comes to balancing classes.

Joe: Like it builds a big sense of community.

Aya: Oh, yeah. For sure. We like to joke, at least when I was in Generate several years ago that it has the most extroverted engineers on campus cause I think there's a stereotype that engineers don't know how to talk to people but that is not the case with Generate at all, people will hang out with you at all hours of the day.

Sam: Since you guys have both been involved for a long time with Generate and the Sherman Center what have you guys learned, any good life lessons or like tips?

Joe: If you guys had to pick, best life lesson that you've learned at the Sherman Center, in Generate. What would it be?

Anuj: I guess on the topic of like balancing, one kind of lesson was maintaining your mental health. That was a huge thing and something like because I was so involved in the Sherman Center and its programs there was a point during the pandemic where I wasn't like really valuing my mental health and I think that

was a really big blessing that really helped me like especially coming back into campus and like meeting people, that was a huge thing.

Aya: I think one thing that it taught me was that you have to maintain your relationships and like put effort into them, especially I think that's something we all learned coming out of the pandemic. When you couldn't see people in person, if you want to hang out with your friend, you have to put in work to hang out with your friends because those relationships, that's what carries you through college and post-college too, I think.

Sam: And last episode we were talking to Jason Toby about like mental health as well. And like, how you like especially during the pandemic, it was really hard because you're just alone in your own space and you're like, okay. Well, how do I interact with somebody? How do I like to get these relationships? Like Aya was saying like, how do I connect with people?

Joe: Thank you guys for that insight. It's really cool getting to hear from people who are in it, doing the same thing as you and struggling. But, you know, successfully struggling. So we love it. How would you say working at the Sherman Center and in Generate has impacted your college career? What would your college career look like without?

Anuj: It would be no co-op.

Aya: Oh, so true. My portfolio is poppin because of Generate.

Anuj: Yeah same.

Aya: I think it's nice to have a support network when it comes to, like, technical experience too. I always like to joke that my two friend groups in college are either Asians, because I'm really involved in the pan Asian American community at school. So, they're either Asians or engineers. So one kind of helps me with my like identity and then another kind of helps me in my career and both are just generally really good sources of friends.

Joe: Anuj, do you wanna build off of that?

Anuj: I mean I'd say definitely there's a part of Generate community, I mean when I was in Build Studio where I was applying to co-ops, you know, I can go to like, hey, this person, can you take a look at my resume and like give me some tips? Or do you have a good co-op that I could do or like, you know, I just interviewed with this company. What have you heard about this company? And like being able to get that support has been really huge. Ted has also been extremely helpful resource and like he can look at your resume and things like that and like give amazing advice.

Aya: Oh Ted gives the best resume review.

Sam: I literally talked to him the other day about resumes, I was like can you actually just look at my resume?

Aya: He's so good at that.

Joe: I feel like every episode we've like given a shoutout to Ted about how he just loves to talk and give advice.

Aya: Oh the backbone of the Sherman Center, honestly.

Sam: Ted has good vibes, you know.

Joe: He's got the best vibes.

Sam: If you could go back though, to your freshman or sophomore year when you joined Generate or the Sherman Center, what would you tell yourself like any advice?

Joe: Fresh into college? What do you think your 17, 18 year old self would need to hear?

Anuj: Personally I come off as a really shy person. My main advice would be don't be shy, there's nothing wrong with it. I think that's been a great thing about Generate, it helped me open up a little bit. Even I'm still a little shy person but like, you know now I'm a little bit more opened up in like can actually talk to people and stuff.

Joe: You're here. You're on the podcast.

Anuj: Exactly.

Aya: I think I would definitely say a similar thing. I, when coming into college and especially in Generate, I was definitely really nervous because they're a lot of upperclassmen in Generate. And when it comes to technical stuff, you know, when you come into college and you know, nothing about your major and then you like, I put the 5th years in Generate on such a high pedestal and now that I'm a fifth-year myself. Like I still don't know what I'm doing, really? I just, you know, can solve derivatives better, do more technical stuff. So that would be the advice I'd give my past self is that the fifth years are not that scary, the old people are not that scary, just get to know them.

Joe: I think a common theme on the ShermCast has been kind of just trusting the process and it sounds like you guys have some experience with that and just growing along the way and figuring things out and the three of us are closer to finishing college, but I feel like I'm still trying to figure everything out.

Aya: Oh you never have it figured out by the end.

Joe: Aya, Anuj, thank you guys so much for coming onto the ShermCast today. We really appreciate all of your insight and perspectives and hearing about your experience within the Sherman Center and Generate has been really impactful and I'm excited to have our audience get to hear what you guys have to say.

Aya: Cool, thank you for having us.

Anuj: Yeah, thanks for having us.

Sam: Thank you guys for listening to today's episode. Make sure to check out the description to follow us on Instagram at NUShermanCenter, find the Sherman Center's website, northeastern.edu/Sherman, and to

subscribe to our newsletter, The Sherman Gazette, and we'll see you back in two weeks with another episode. We'll see you next time on the SermCast.