

Designers Working With Software Engineers | Kaya Thomas, Calm

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[00:00:04] **kaya:** [00:00:04] I think technical debt is probably one of the most, difficult and at times frustrating parts of software development, because there will always be technical debt. There will always be ways of things that you need to improve, but you have to weigh, thinking about, , really investing time into fixing the code base and the technical solutions with product development and shipping features.

[00:00:25] you're listening to the UI narrative podcast, the biweekly podcast that shares how industry leading designers got started interface design and how they create successful user centered experiences. And I'm your host. Tolu Ajayi let's get started.

[00:00:40] **Tolu:** [00:00:51] Hello, everyone. Welcome back to the podcast today. We have someone special in the guest chair. So Kaya [00:01:00] Thomas is an iOS engineer at Calm. Formerly, she worked on iOS at Slack on the messaging team. She graduated from Dartmouth college with a degree in computer science and did software engineering internships at time, inc Intuit and Apple in 2014 Kaya launched.

[00:01:21] We read to a book resource app that features titles for kids and teens. Written by authors of color, aside from coding, she also enjoys writing and public speaking. Kaya has by-lines in one zero, smashing magazine tech crunch and fusion. She's also spoken at several conferences all over the world. So everyone, I want you to give a warm welcome to our guests.

[00:01:46] Kaya

[00:01:46] Thomas.

[00:01:47] **kaya:** [00:01:47] Thank you so much. I'm so excited to be on the podcast and chat with you today.

[00:01:52] **Tolu:** [00:01:52] thank you so much for spending time out of your day to help us learn a little bit more about you and your story. So Kaya, tell us a little [00:02:00] bit about where you grew up.

[00:02:01] **kaya:** [00:02:01] I'm from New York originally. I'm living out in California now, but I grew up, between Staten Island and Harlem.

[00:02:08] **Tolu:** [00:02:08] how was it living in New York? Have you enjoyed it? Like growing up there, your whole life

[00:02:13] **kaya:** [00:02:13] Yeah. I mean, I'm, I'll always be a new Yorker through and through. I definitely miss it sometimes. I think New York city explicitly is one of the most diverse places in the world. And so I was really fortunate to grow up. Around all different sorts of people and just get perspectives from all different types of cultures and communities and the food in New York.

[00:02:34] I'm a big foodie. So the food in New York is like, you know, unmatched, you can get every type of food and whatnot. And yeah, I love New York.

[00:02:45] **Tolu:** [00:02:45] What's one of your favorite dishes from New York.

[00:02:48] **kaya:** [00:02:48] Oh, from New York, New York pizza. I'm sorry for anyone from Chicago, but New York pizza, in my opinion, the best. I mean, I haven't been to Italy yet, [00:03:00] so I'm assuming probably Italy will top, top New York pizza. But yeah, I love, I love pizza. I love. Indian food. I love food. So there's actually where, where I grew up in Staten Island.

[00:03:12] There's a huge Srilankan community. So I grew up eating a lot of Srilankan food, going to Srilankan restaurants. That's probably a convenient, a lot of folks haven't eaten before, but it's amazing. so I love Srilankan food, Indian food, Mexican food. I just grew up eating all the different types of cuisines that you can think of.

[00:03:32] **Tolu:** [00:03:32] yeah, that sounds amazing. New York is definitely on my bucket list to visit one day. definitely because I just love eating a lot too here in Texas. Like the big thing is barbecue and I can, I can eat barbecue like everyday and tacos. cause you know, we're right by Mexico. So lots of, Different like TexMex Cuisine over here, which is just delicious.

[00:03:55] **kaya:** [00:03:55] Yeah, I've been, I've been to Texas a couple of times. Houston, explicitly, [00:04:00] and, Oh my goodness. The barbecue is so good.

[00:04:04] **Tolu:** [00:04:04] So in your interview you did with iOS dev discussions. You mentioned how you originally didn't know you were coding when you first started out. Doing HTML and CSS on Myspace pages, which is so funny to me because I was doing the same thing, but obviously I didn't become a developer. I would just copy code from shared templates and then just like adjust the color.

[00:04:29] I want you to tell us a little bit about, more about your education journey. How did you get started as a developer? And when did you know that this was the career for you?

[00:04:39] **kaya:** [00:04:39] Yeah. So, you know, throwing it back to my space. I was in middle school and I. I didn't know anything about coding or anything, but I just loved customizing my pages and I would customize my friend's pages, by editing the HTML. I didn't even know what HTML was. I didn't know the word for it. Right. I just knew it was [00:05:00] like the code in the browser that you had to like play with.

[00:05:04] It was just, you know, you would read online the areas that they would tell you to change or whatnot. But, so that was kinda my first 48, a little bit into coding, but I actually didn't actually start. Programming seriously until many years later until I got to college. So I've always really been interested in science and math.

[00:05:23] And when I graduated high school originally, I thought I was going to study environmental engineering. I got really into environmental science when I was in high school and did different extracurriculars around environmental. studies and environmentalism. So I was planning to study environmental engineering, but when I got to college and I started to, you know, put together my class plan and whatnot, I realized that.

[00:05:50] I wouldn't actually get to the engineering courses probably to like my junior year, because I had to take all these prerequisite courses. So I had to take calculus and physics and [00:06:00] bio and chemistry. And to me that just felt like high school all over again, because, you know, I had to take those classes in high school and.

[00:06:08] Some of them. I enjoyed, like I enjoyed physics a lot. I did not really enjoy chemistry. Bio was okay. But I just didn't feel like taking all of those prerequisite classes. You know, I was really one of the things that excited to be the most about college is that I would have like a lot of control over my academics and like what classes I would take.

[00:06:27] And I was being a Dartmouth there's, you know, these world class professors who are. You know the head of their field. Then I wanted to be able to take classes in a wide range of departments and whatnot, and really expose myself to various things. And I didn't feel like I could do that if I. Did the engineering degree, the bachelor of engineering, because it was just really strict in terms of the requirements.

[00:06:52] And I had an advisor who kind of was a little bit discouraging and said, you know, if you're not taking this class by this time and this, [00:07:00] by this time, then there's no way you're going to finish a degree in engineering. And so it was, it was really discouraging and I really was sad because, I wanted to do STEM something in STEM, but I just didn't really know, what was the path forward.

[00:07:12] And so after my first term in college, I randomly came across, the Ted talk by Kimberly Bryant, the founder of black girls code, and I watched it and she talked about. Coding and programming and how there was going to be so many software engineering jobs in the next couple of years and women of color, are not usually.

[00:07:36] Exposed to these fields. And that's one of the reasons why she came back girls code and, you know, there should be more black women and girls studying programming and computer science, and it sounded so cool to me. And so I looked up how to code online and I came across Codecademy and so I signed up for their Python course.

[00:07:55] And so during, after my first term, during that winter break, I was just. [00:08:00] Learning how to code. And I loved it all. My God. It was so fun to me. And so I signed up for a computer science class for my second term, and I was hooked from there on.

[00:08:12] Tolu: [00:08:12] I love that you were able to. Learn about this new career path for you, from someone else speaking about, you know, their experience in it. Cause that's partially like how I got into UX design. One of my, colleagues, he was telling me, Hey, like I see how you talk about design in this way and how you're always curious of, how things are broken down.

[00:08:35] The reason. Behind why we're creating something. And he's like, I feel like UX would be like right up your alley. And originally, like I thought UX was about coding. That's how educated I was about it. So when he was like going into detail about it, I'm like, what, something like this exists, how come everyone doesn't know about this?

[00:08:54] Cause like I know people that would probably be interested in this as well. So, I think it's cool that Kimberly Bryant was able [00:09:00] to. Paint that path of like, Hey, you could probably be in this. even if it wasn't like a one on one conversation, that's why I'm

always like anyone who, is in a industry where you don't see enough people that look like you talk about it, tell people about it.

[00:09:13] Cause you never know who's listening and could be inspired enough to start a career in that.

[00:09:20] **kaya:** [00:09:20] Exactly. You really never know. And so many folks are not really exposed to the really wide array of things that you can do in tech. Like you said, it's not just coding. There are so many other things you can do design, you can do copywriting. You can, you know, the documentation you could do customer.

[00:09:40] Experience, there's so many different things and ways to get involved in the tech industry. So like you said, it's so important to just share your perspective and fields with others, because they may not know that it's something they may be interested in.

[00:09:54] **Tolu:** [00:09:54] You've worked at Slack previously as an engineer, and now you're a senior iOS [00:10:00] engineer at calm. What are the most important guidelines for creating functional UI designed on an iOS app?

[00:10:08] **kaya:** [00:10:08] That's a great question. So I think when it comes to mobile development, iOS and Android, . It can be tricky sometimes because there is a lot of ways you can do like hybrid apps. Right. But in my experience, I think it's very important to design. Experiences for iOS and Android separately because they have completely different design paradigms and things that are more natural and native on iOS may not be the most normal thing on Android, or I'll give you a simple difference.

[00:10:42] Like on Android their, hamburger menus , are. Pretty popular on Android, right? So side menus, but that is actually not really, that's not something that's very common anymore in iOS. So an iOS usually menus are [00:11:00] tab navigation. And so thinking about how you actually even wanted to design it, something like a menu that may seem simple, but you really have to be very thoughtful on what's the most normal thing for that specific perfect platform.

[00:11:14]and then thinking about navigation and so something new in, iOS 13 for iPhone apps is modal. these kind of. Modal presentation, views that kind of hover over of views. So you can be on one screen and then pop up another screen. And it almost like hovers over that screen. And so thinking about how you want to do navigation is really important, whether you want to do some type of presentation and those transitions, or you want to

[00:11:43] push on to the next screen. And if you want to do some type of animations of crossfade or something like that. so I think when you're thinking about designing an iOS app, you have to first look at similar apps [00:12:00] that have a similar feature set to , what you're thinking about developing or designing And And make sure that they're, you know, well-used apps, so top chart apps, and then see how the design feels, like, see how they experience feels, and then use that kind of , as a guideline and a base to say, okay, well, it seems that across these five apps we look like, it seems like this type of animation is very common or these types of transitions are common or , they use tab menus with texts and photos.

[00:12:35] And so just think about. The different ways that you would want the user to interact with the app and just make it the most kind of native and natural experience that you can.

[00:12:46] **Tolu:** [00:12:46] Yeah. I like how you touched on, hybrid apps because, I've worked at companies that have just been really adamant of we have to do hybrid because it's, saves time with development and so on and so on. But, I [00:13:00] liked that you are. Painting the picture of how important it is to have, separate designs for iOS and for Android.

[00:13:08] it is additional work, but just considering how the user will feel between both devices, and making sure that they have a unified experience, you know, even if it may look a little bit different, but you know, an Android user. Might think of how to use it differently than an iOS user.

[00:13:29] So, I just love how you painted that picture of how iOS and Android can be done separately, but still, you know, be a unified experience.

[00:13:40] **kaya:** [00:13:40] Yeah, it definitely definitely give a unified, but like I said, think you hit the nail on the head. It's important to invest that extra time because hybrid is faster and easier, but there are still ways, even if you're building like a hybrid out with like something like react native, there are still ways to.

[00:13:57] Give the unique experience for each platform. [00:14:00] And so I think, investing the time in that is going to be really important.

[00:14:03] **Short Break:** [00:14:03] Let's take a short break

[00:14:06] **Layout Grading System Ad:** [00:14:06] Have you ever received the bad feedback on your mobile app designs? Yeah, me too. I know how much it sucks to receive negative feedback on a design. I've worked so hard on and I still reflect on the first time I worked with called ugly over seven years ago, I was determined to become a better designer.

[00:14:23] So I created a grading system to see just how bad I was. And once I graded myself, I realized where my problem areas were and began to focus on improving them seven years later. And I'm still using this system at my corporate job for every project. Since I've started using this grading system, I'm able to have the confidence and knowing I presented my best work to my clients and my boss.

[00:14:45] I created this layout grading system to help you find clarity on how to decipher feedback and improve your designs. In this guide, we go over industry tested best practices that I use in my day to day. And reveal where your problem areas are. Then you [00:15:00] proceed with action sets on how to improve your designs.

[00:15:03] You have the power to change negative feedback and do something positive. Visit [UI narrative.com/rating system](https://narrative.com/rating-system). To start improving your designs today, that's you are [narrative.com/grading system](https://narrative.com/grading-system). I'm super excited to share the methods that helped me turn my designs into something exceptional. And I can't wait to see it.

[00:15:22] Do the same for you.

[00:15:26] **Tolu:** [00:15:26] what are some UI misconceptions for development? Is there anything that you've seen and had to say? We can't do that?

[00:15:34] **kaya:** [00:15:34] Ooh, that's always a tough conversation, right?

[00:15:39] I

[00:15:39] I think it honestly depends on the code base so I can tell you this right. if you're working on a team with developers and designers and you're building a new app from scratch, usually sometimes the sky's the limit because. You don't really have any limitations of a legacy code base where the limitations really come in [00:16:00] is when you have an older app with a legacy code base.

[00:16:04] So designers may want you to do a particular thing with animations or do a particular thing with the transition between two screens, but because you know, the legacy code, it doesn't really lend to that being something that's. Easy to implement. So it's not that it's impossible to implement because most things are possible to implement, but it's about how much time it would take.

[00:16:26] So is it worth the investment of a refactor? So you might have to refactor the code to accommodate for those designs. And so I think that's where you have to have some compromise and have to have a serious discussion about timing. Like if you, if this is a feature that needs to be shipped. Soon and fast understanding that you might have to make some design changes and implicate applications, because there's not enough time to refactor the code in a way that would account for that.

[00:16:54] So I think that probably some of the biggest [00:17:00] misconceptions is like thinking that the transition from two screens, I think one of the biggest things is. You have some elements on one screen and you want them to animate to another screen in a way where it looks like it's the same screen. So like, I can give you an example.

[00:17:17] You may have like a button, right? Let's say you have a button. And then when the user press on that button, you want it to animate to the top of the screen. And then you want to fill some texts in on the bottom or something. Now from the design sample, you're like, Oh yeah, this looks great. Right.

[00:17:33] But for us on the development standpoint, we need to figure out, okay, is, are we going to keep this all in one controller? So for iOS, you're usually working with, you controllers and view controllers basically are responsible for owning the view and all of the elements that are on the screen. So if.

[00:17:54] You have a button that you want once the user selects it, you want it to animate and [00:18:00] then you want to bring new elements in. Now we have to decide, okay, are we going to keep that all in the same screen? Which means that all the other elements on the screen, it needs to either be hidden or removed from the view. Or we need to create a new screen and then replicate that button and almost fake it. So have that button appear as if where it was and the old screen. So then we have to know what the position it was on the old screen, and then animate and bring them the new elements. So there's a lot of, I think, Development implementation and trade offs that we have to make when we're doing something, when it comes to transition between views.

[00:18:43] And when you want to share elements from two views on, on two different screens.

[00:18:49] **Tolu:** [00:18:49] So then, I guess another question I have for you is, does it also too. Come down to the fact of needing to like optimize the code of, do we add [00:19:00] in another screen or is there a way that we can like, you know, put in, I don't know the correct terminology so excuse me on this, but putting in like the right

[00:19:08] right command to, optimize it.

[00:19:11] **kaya:** [00:19:11] Yeah. I mean, I think there are performance applications there. Definitely. Sometimes that you have to think about, when you, especially, if you're thinking about another part we haven't really talked about is where the information on the screen is coming from. Right. So if you have texts, is that coming from the backend? So then we have to think about how we're actually, are we loading that? Like, is there going to be load time that it's going to need for that data to come in? And so we have to think about performance and what the user experience is going to be, because we don't want the user to just be waiting right.

[00:19:46] Waiting and waiting, and then figuring out how we want to either add a loading screen in or when do we want to do the animation? And so there are so many different kinds of performance. Optimizations you can make. [00:20:00] And I think it's definitely great. on both sides, the designers and the developers to be willing to have these conversations with each other.

[00:20:08] And it doesn't even necessarily, you don't need to be getting down to the nitty gritty and talking about the lines of code, but just making it, making it clear that, okay, Hey, this is going to take more time because of XYZ and using like layman's terms so that everyone can understand. and they don't necessarily have to know like what's going on exactly in the code to know.

[00:20:28] Why it might be a problem to implement the design that they made.

[00:20:32] **Tolu:** [00:20:32] I think too, like for all product designers, it's just a matter of. Asking that simple question, showing it from the beginning, like when you're in the drafting stage is like, this is what I'm thinking, will this work. Cause I feel like that alone will save a lot of time of having to go back to the drawing board of you're presenting all your designs and development being like, well actually this isn't going to, you know, pan out.

[00:20:55] **kaya:** [00:20:55] Yeah. I mean, these kind of conversations can be [00:21:00] tension filled sometimes.

[00:21:02] Exactly. Because as a designer, I'm sure you're putting all this time and effort into this design and you're like,

[00:21:10] wait,

[00:21:10] why

[00:21:10] can't you just do

[00:21:11] it?

[00:21:13] but I think that's where sometimes we're product managers come in, engineering managers come in, because if there is some type of riff where you're like, well, This is not going to pan out at all or, or not.

[00:21:25] That's where I think adjustments can be made on a timeline. And, you know, you talk to the stakeholders about, okay, well, we had to push the time out a little bit more because we do want to invest in being able to implement these designs because we feel like this is the best design for this feature. And so we want to invest.

[00:21:42] We want to invest the engineering time to be able to make it possible, to

[00:21:46] make those designs in.

[00:21:47] **Tolu:** [00:21:47] I like to think about developers as part of the UX process when creating UI, because we're basically designing a product that they need to be able to create. So have you had instances [00:22:00] where you needed to suggest UI modifications for limitations of the product or is it usually like the product managers that help you out with that?

[00:22:09] **kaya:** [00:22:09] I've definitely had times where I have to ask for changes in UI implementation or design. it's not just the product managers. I think it usually, I think it only has to escalate or sometimes it's like a team discussion. So I think a lot of times the product managers or designers are working very closely together because the product managers are writing out the specs for the features.

[00:22:32] And then the designers are implementing the mockups for the spec that the product manager came up with. Right. And all the flows and whatnot. And so. Usually, if I have any questions or want something changed about the design, I'm talking to both the product manager and designer.

[00:22:48] **Tolu:** [00:22:48] As designers, we're always learning about new tech features and applications that benefit the users. For example, like facial recognition, mobile pay, [00:23:00] voice recognition and even AR in apps like Pokemon go and Ikea, what's a tech feature in iOS devices that you see being integrated in more apps in the future that designers should focus on creating better experiences for.

[00:23:17] **kaya:** [00:23:17] Yeah, that's a great question. I think two things that come top of mind are, payments. Right. Mobile payments are huge right now. when you have, when you have an apps that are dealing with some type of payment infrastructure, I think that UX is incredibly important there because it needs to be clear to the user, how, you know, what they're paying for, how often they're going to be charged and

[00:23:42] I think there's a lot of thoughtfulness that needs to go into like payment screens and when the user is entering in their information, they're confirming payments and things like that, because there's a lot that can go wrong. And if the user doesn't really understand the screening or there's, the information is often skidded [00:24:00] in some way, I think it's just going to create problems down the line.

[00:24:03] Right. and the other one, I would. I say it's augmented reality has been really over the years, kind of coming up more and more. You see a lot of companies, over the years have

either developed some type of AR hardware or their AR apps are now becoming a little bit more popular, like doing simple things like an AR ruler or something like that.

[00:24:25] And so thinking about what. If, as a designer thinking about the future and how augmented reality can be a really good experience versus something that's like confusing or tough to use or, you know, frustrating. And so thinking about how you can make that experience more natural, I think is, are probably two things to really think about.

[00:24:46] **Tolu:** [00:24:46] Yeah, those are great points. especially with mobile pay. Like I at first was like, I don't see myself using MobilePay. But now when I go to whole foods, it's one of the things that's like the instant thing that I use, because it's like, I scan [00:25:00] that code for the whole foods app and then it's like, I go straight to the mobile pay.

[00:25:04] So definitely thinking about what else would the user be doing when they're interacting with mobile pay? All right. So I want to dive into your app. We Read Too, which is an app that features books written by authors of color listeners. Kayla's app has been featured on the Apple app store. Several times.

[00:25:24] Her app was even behind Tim Cook at one of the Apple events. What was your inspiration for your app? We Read Too.

[00:25:32] **kaya:** [00:25:32] So the inspiration for We Read Too was really from my own personal experience. Growing up is I've always been an avid reader. I love books. But when it came to, as I got older, I started having a lot of difficulty in relating to the characters and the books I was reading growing up. Luckily, I had parents that were really great in terms of finding picture books and things where there were black girls, in the books or black people in [00:26:00] general.

[00:26:00] And so I felt as a child, I definitely, I think had that representation, the books that I was reading. But when I got older and I was responsible for like finding my own books, right. And you're reading what's popular and what not. And what's shown to you and display in the library or the bookstores. A lot of those books, you know, there was no people of color, you know, , in the characters or the authors.

[00:26:25] And I think it started affecting my self esteem over a while because I just didn't understand why, you know, why all the books had to. Be the same and why, couldn't, why weren't there authors who were writing more diverse characters and did not care to do that. Did they not think it was important and whatnot?

[00:26:44] And I just realized that like, these books are just really hard to find. Sometimes it's not that they don't exist, but they might not be what is being displayed to you at the library or. At the top of the charts on the online bookstores. And so once I learned how to code, I was like, [00:27:00] wait, I could create some type of directory or resource where it's really easy to find books that are written by black, Latinx, Asian, and indigenous authors, where the characters are also from those same backgrounds.

[00:27:14] So that kids like myself. Could be exposed to that representation, but also so that all kids can read more diverse stories. So they're kind of understanding that difference should be celebrated and that it's good to read stories about cultures that are different from your own.

[00:27:32]Tolu: [00:27:32] it's inspiring to see resources like yours put together. One of the main reasons that I created UI Narrative is to bring more people of color into the product design industry. So it's always exciting just to see, Product or service targeting the importance of how some things they're just not that inclusive to people of color.

[00:27:53] So seeing, you know, all those collections of books, for different races, it's just like, yeah, I matter too here. [00:28:00]

[00:28:00]Yeah, On the show, Talking About Books for Kids, you mentioned how you were unsure who your target audience was in the beginning phases of We Read Too .What was the process like for getting feedback on your application in the early phases of the app compared to what you do today?

[00:28:18]kaya: [00:28:18] Yeah. The early, early days of getting feedback were really just family and friends. And I actually, it's funny, my first mockups weren't even, you know, the actual iOS app itself when I was first thinking about how I wanted to design the app and whatnot, I use phone gap, which I don't even think exists anymore, but it was kind of like a drag and drop web mockup tool that let you kind of put together a fake app that people can interact with, like using a web link. So think like, InVision,

[00:28:54] but really, really basic. I put that together. [00:29:00] And then once I had the kind of web mockup, I let family and friends play around with it and let me know what they think. I was very early in my development kind of journey. And career what I made We Read Too, I was, I just finished my freshman year of college and I was doing my first mobile development internships.

[00:29:26]And so I didn't really necessarily have a lot of experience in terms of like user testing , and really what it takes to build , a product I just kind of was winging it

[00:29:38] in the, in those early days.

[00:29:40]Tolu: [00:29:40] I like seeing that, even though you didn't necessarily know about user research entirely, like you were still doing like the fundamentals of it. And that's what I tell people. I'm like, you probably are doing user research in some way, whether it be you're texting, your group of friends to get an opinion on something

[00:29:58] it's like you're practicing [00:30:00] some of the fundamentals of user research to where it's like, you could do this as a full time job, if you would like, like, if you enjoy that process of collecting information from people and seeing their opinions on. Just different topics, opinions, products.

[00:30:15] What are some of the challenges you face when working on your own app versus working with, the calm app?

[00:30:23]kaya: [00:30:23] Yeah, when you're working solo, I think there's a lot of, challenges that arise because it can be great in that you can kind of do whatever you want, but. You still have the limitations because you are only one person. And so I think, especially when I was first kind of coming up with the ideas for features for the app, I wanted to build all these features, but you have to start small.

[00:30:48] And that's what I realized is that you have to work incrementally because I had all these kind of grandiose ideas, but it can be really overwhelming when you're just one person and you know, that you're responsible for getting all of [00:31:00] those implemented. Right. And so you have to. Really dial it back a little bit and lower your scope so that you don't burn out and that you, you know, give yourself the opportunity to make sure you're still shipping things, but you're doing it at a reasonable speed and you're doing it one by one, instead of trying to do everything at once.

[00:31:22] Whereas when you're working with a team, there's a lot more collaboration happening, a lot more can get done in a short amount of time. Sort of amount of time. And I think it's nice, you know, working at a full team where you have somebody who is responsible for design somebody who's responsible for product management and coming up with new ideas for features and analyzing data.

[00:31:43] And then you have the people who are implementing as the developers versus when you're working on your own app. And it's just, you, you have to be all of those people. And so, there's definitely trade offs there. they're very different experiences. And I think , there's great things about both [00:32:00] either working solo or working as a team.

[00:32:02] I think it just depends on the project and really what you're looking to get out of it.

[00:32:08] **Tolu:** [00:32:08] Yeah, I definitely relate to that. as far as when I was doing more freelance work. On my own, you know, not having anyone to challenge me of, okay. Actually with this design, you could, you know, push it this way, compared to like where I am now, I'm working on with a small design studio and whenever I'm giving something, like they immediately have feedback for me, which I love because before it's like, this probably could be pushed a little bit further, you know, design wise.

[00:32:35] But no, one's really challenging me here because it's like, this is like the best thing they've seen with their product. So. you get that creative freedom when you're on your own, but then in , a team, you get that collaboration to push your product maybe further than you could have by yourself.

[00:32:51] **Short Break:** [00:32:51] Let's take

[00:32:52] **Tolu:** [00:32:52] a short break.

[00:32:52]

[00:32:54] **Email Club Ad:** [00:32:54] Did you listen to this episode before it launched? My email club members are [00:33:00] the only people who get access to this behind the scenes information. They're the first to know when I posted a new blog posts, latched products, and also share clips at the next podcast episode. This weekly email is a way for you to see behind the scenes of what new things are coming to you.

[00:33:14] I narrative. I also share my weekly UI UX and iterations, tips and challenges. So you get to see my creative processes like each week. So this next episode is about, oh wait I can't tell you. You have to join the UI narrative email club to hear more. You can join at uinarrative.com/emailclub.

[00:33:37] I have a lot to tell you, so I can't wait to talk to you soon.

[00:33:43] **Tolu:** [00:33:43] Most of the people listening are either designers or someone who has little to no experience with iOS development. So what's like the iOS for dummies breakdown for someone who wants to start building their own app today. [00:34:00]

[00:34:00] **kaya:** [00:34:00] Yeah. So if you're thinking about building your own app, I would say, well, one of the ways, especially from a design standpoint last year, Apple announced this kind of new way of doing UI on iOS called Swift UI. And. It's basically a declarative way to do iOS development. That's very different than how iOS development is currently done.

[00:34:30] And essentially what that means is , you would write something like text and then in the background, it's basically done for you, how to then represent that on the screen. So you don't really have to think about how the label is going to, display itself, where it's going to display, you can say texts, hello, and you are confident that it's going to display in the right place.

[00:34:54] And it's very different than the imperative way of currently doing iOS belt with UI kit, where you have to [00:35:00] create, you have to create a label. Then you have to add that label as a sub view. And then you have to. I say explicitly where on the screen it's going to be presented and then you have to like, it's a lot, right.

[00:35:14] As I'm, as I'm sure eyes are glazing over as they listen to it, thinking about that. So I would say if you're a designer, the declarative way of, of developing with you was with UI would probably be way more natural to you. And so I would say. If you're interested in developing an app start with, with UI, because it's the future of iOS development.

[00:35:38]and with Apple's worldwide developer conference, which is coming actually this week, we know that they're going to announce a bunch of new things with Swift UI two and Swift UI. One was definitely a little bumpy. There were some bumps along the road, but as this. Library matures. I think that , it's going to be great [00:36:00] for, you know, developers and designers alike, because I think it provides designers the opportunity to quickly mock up an idea that they might have.

[00:36:08]and if you want to do that right now with UI kit, it's really hard to get started. There's a lot of barriers and that might be very confusing if you're not really trying to become an iOS developer. So if you're actually. Trying to become an iOS developer. It's going to be essential that you learn UI kit because it's the standard and will probably be used still for years to come, even though Swift UI is going to be the future.

[00:36:34] But if you're a designer who just wants to dabble in iOS development, or you just want to kind of create a mock app, and you're not really necessarily trying to switch careers, I would say. Go with Swift UI and a great place to start is, Paul Hudson, who created hacking with slip. He has a three resource call, a hundred days of Swift UI.

[00:36:57] And I would say that's a great place to start to [00:37:00] really understand how it's with UI works and get into a little bit of iOS development. And I think that. They're one of the things that's exciting about Swift UI is that I think there will be a lot more opportunity for discussion between designers and developers about implementation, because I think there's

a lot more opportunity for diverse designers to understand the implementation because of this kind of new way of building views going forward.

[00:37:28] **Tolu:** [00:37:28] Yeah, that's some great insight there. I'll also link Paul Hudson, 100 days of Swift UI if you're interested in getting started with a Swift UI, so I've messed around with it a little bit. And from the little bit that I saw, it was pretty amazing guys. You're basically coding something, you know, and seeing the UI as you're coding.

[00:37:48] So it kind of feels like you're this mastermind behind this product now because we were like, wow, like I'm actually putting together the function of what I've designed.

[00:38:00] So another question I have for you for someone, that wants to create their own app and get it on the app store. What's that process like of getting things like approved

[00:38:09] and et cetera.

[00:38:11] **kaya:** [00:38:11] Yeah, the app store approval process can be rough sometimes, but I think what you have to do is . When, you know, you're going to submit your app, you need to read Apple's human interface guidelines, even before you are going to submit that, right. When you were thinking about developing the app, read Apple's human interface, guidelines, read their App Store guidelines so that you're not surprised if your app gets rejected.

[00:38:35] It happens to all of us, at least once. And if you get rejected, You need to understand on why, like, what guidelines did you break and like how to move forward. And so to kind of be proactive about that, just make sure you're reading Apple's human interface guidelines. You're reading the guidelines they have for the app store so that you're not breaking any rules, quote unquote.

[00:38:57] So when you go to submit the app, there's no surprises [00:39:00] there.

[00:39:00] **Tolu:** [00:39:00] for those of you that aren't interested in development, like still. Go and look at those guidelines because you're going to be helping your developers from having that conversation with you later on.

[00:39:10] **kaya:** [00:39:10] Yeah, designers definitely should be familiar. If you're designing for iOS, you should be familiar with those human interface guidelines so that, you know, it's not the developer who has to say, Hey, that design you did is breaking the guidelines here. So it'd be great to get pretty familiar with those.

[00:39:27] **Tolu:** [00:39:27] Do you have any advice for women and people of color? Because I'm sure some of them are looking like, Hey, I see that you're doing this and you've inspired me now to get into software engineering.

[00:39:40] **kaya:** [00:39:40] Definitely. If I've inspired anyone and you're listening to get into software engineering or development, I would say don't be discouraged. the reality is. Programming can be a very frustrating experience. And this is whether you're a beginner or an expert. And I think a lot of [00:40:00] beginners, they attribute that frustration or difficulty they're having with something, meaning that they're not cut out for it or that.

[00:40:08] No, it's, I'm not cut out for this I'm getting things wrong too often, or I'm making too many bugs or, you know, the code is not compiling by all the time. And it seems like,

wow, I'm never going to get the hang of this, but that is honestly just a part of software development. No matter if you've been doing it, you know, two months or 20 years, you're going to come to roadblocks, you're going to run into bugs.

[00:40:34] You're going to have crashes and it's not. To say that you are, you know, awful at it or that you can't actually build a career at it. So the difficulties that you may face in trying to, you know, become a better programmer and developer are completely normal. And they're not just because, you know, it means that you're not cut out to do it.

[00:40:57] And so don't let those frustrations [00:41:00] stop you. And I feel that, Obviously not everyone loves programming or wants to be a programmer, but if you really do enjoy doing it, And yeah, we all have had moments where it's really frustrating, but if you actually enjoy it and you get some type of joy from it, then you can, you can definitely try to pursue a career in software engineering.

[00:41:20] I try to tell people that yeah software. Engineers do get paid a lot of money and, you know, that's a great part of it, but you can't just become a software engineer because the money is great. You have to. Have some semblance of enjoyment from programming otherwise, and you might be pretty miserable.

[00:41:41] So I would, you know, to anyone who's from an underrepresented background, who wants to give it a try, is you're gonna come across roadblocks and obstacles, but don't let anyone tell you, you know, because your background that you can't become a software engineer or that you're not cut out for it. I think those people are just hateful

[00:41:59] and [00:42:00] insecure. And you can do anything that you put your mind to. And if you put in the work and realize, and reach out and build your network, I think that's another important part. Reach out to people like me. People like Tolu, who are in the industry, and one is support you and lift you up and know that you are supported.

[00:42:24] And that there are people who want you in the industry, even if there are those hateful people who don't, there are people who do, and we are here and want to support you.

[00:42:33] **Tolu:** [00:42:33] yeah, well said. Next we'll get into listener questions. I asked on Instagram stories. What questions do you have for an iOS engineer from Calm? So this first one is, what's your favorite thing about being a software engineer?

[00:42:50] **kaya:** [00:42:50] Oh, my favorite thing about being a software engineer would have to be. Mm. Okay. I'm trying to choose between two things. [00:43:00] Okay. The first thing that came to mind honestly, is just the fulfillment you get. Mmm. This may sound silly, but like using your, your mind to solve problems, it's just the, I don't know, there's like a thrill you get, at least I get a thrill that you get when you realize that you were able to come up with like a systematic solution for solving a problem.

[00:43:27] And like you were able to think, and. write The code that needed to be written in order to solve that problem. And I think that's people think, you know, all a software engineers, primary thing is programming, but in my mind is really thinking our job is really to think and to figure out solutions to problems.

[00:43:49] And that I think is what can differentiate, you know, a someone who is really. Trying to build a craft of being a software developer versus what they [00:44:00] call quote unquote, a code monkey who is just pushing out code. And so it's not just about the code itself, but it's really about deep thinking and be able to kind of use , your experience and learnings and skills to be able to solve problems.

[00:44:15] So that's my favorite part.

[00:44:16] **Tolu:** [00:44:16] that definitely ties in with, you know, the UX profession of. Designers talking to these people, figuring out their experiences with the product or potential products and coming up with a solution that solves that. So problem solving, like if you're into that, you know, then this could definitely be another career path for you, whether it be, you know, going full time into software engineering or doing like part-time software engineering with your own products that you develop.

[00:44:48] Another question is what's the most challenging part of your job as a software engineer?

[00:44:55] **kaya:** [00:44:55] Oh, my, the most challenging part, I would [00:45:00] say the most challenging part of software development , and most software engineers have to come with this is. It's very rare that you're getting to build a project from scratch. and , the reality is any code. The second it's written and launched is legacy code. so I think one of the most difficult parts is really knowing how to.

[00:45:25] Come into a code base that's already existing and learn the code base, work with the code base and try to understand the intricacies and ways to handle bugs and things that may come up with the user experience that need to be fixed. and you may have a code base that has like just years and years of technical debt.

[00:45:44] And so I think technical debt is probably one of the most, You know, difficult and at times frustrating parts of software development, because there will always be technical debt. There will always be ways of things that you need to improve, but you have to weigh, thinking about, [00:46:00] , really investing time into fixing the code base and the technical solutions with product development and shipping features.

[00:46:06] And I think that's kind of , the. Lifelong debate of the software development cycle is like, when do we have time to invest in both fixing and refactoring and technical debt versus how much time are we spending shipping new features, working on new experiments, things like that. And so I think that kind of debate, I think is one of the most difficult things about software engineering.

[00:46:28] **Tolu:** [00:46:28] I didn't even think about, technical debt as you know, one of the most challenging things. That's really interesting because, you know, as UX designers will look at a product and be like, why is it like this way? Not realizing that there's a legacy code. Behind the reason decisions of things. And, you know, it was kinda just like, unless you do like a scrape and start from the beginning, which you know, is really difficult for most companies.

[00:46:54] it's just a matter of figuring out the best of work around to still make the users happy.

[00:46:59][00:47:00] Well, that's all the listener answers for this week. As a reminder, you could be included in the next episode. Make sure to follow me on Instagram @uinarrative and Twitter at @uinarrativeco, I randomly ask questions that will be featured in an episode and answer your questions. Live on the show.

[00:47:24] So I like to end the show with a random question, completely unrelated to what we've been talking about. , this question is if you could pick up a new skill in an instant, what would it be?

[00:47:38] **kaya:** [00:47:38] I would say baking

[00:47:41] baking is like, I love cooking. But the thing with cooking is it's easy to experiment with stuff. You can just kinda , throw things together. And it turns out to be magic, but baking is like a science.

[00:47:50] you can't just throw you know, a cup of backing powder and expect it to turn out. Great. I think if I could. [00:48:00] Pick up like baking where I could just inherently know the right measurements and stuff, because my grandma's really good at this. Like she might know, Oh, well, I don't need to measure it because I know how much you go in.

[00:48:11] And I like have to measure to a T

[00:48:13] and I'm like, so I wish I wish that's something I could like pick up instantly.

[00:48:20] **Tolu:** [00:48:20] I would love to be able to bake too. Like I make some nasty ass cookies. Like I need, I need instructions down to the T otherwise, like disgusting. I guess a skill for me, I would love to be like bilingual or trilingual basically. I know, right. Being fluent in any other language, but English, I mean, I've been exposed to a lot of like Yoruba language coming from like my cultural background and then some Dominican Spanish because of my partner's background, but I'm not able to form a full sentence and either, so it would be nice to just [00:49:00] like, have a conversation and then have the language just because there's some people, you know, you have that barrier of , you meet them, but then all it can be is like, Hey, how are you?

[00:49:08] And it's

[00:49:09] **kaya:** [00:49:09] Yup. Yeah, I really would love that too. I I've always been pretty terrible at foreign languages. I studied languages for years in school and like now I'm not flowing at all. So I agree with you there.

[00:49:25] **Tolu:** [00:49:25] yeah, I had took some Spanish classes in high school and in college, but, you know, unless you practice it kind of just like disappears after a year.

[00:49:36] **kaya:** [00:49:36] Definitely the immersion and the repetition and consistency is key with language

[00:49:43] **Tolu:** [00:49:43] Yeah. so where can we connect with you online?

[00:49:48] **kaya:** [00:49:48] you can connect with me a lot on Twitter. I'm really active on Twitter. @kthomas901. I don't usually use Instagram for. [00:50:00] you know, connecting as much, but I am on Instagram as well @kmt901. And, you can connect with me via my

website as well. If you would like to, you know, contact me or email me, you can go to my website at kaythomas.info Or shoot me an email

[00:50:23] **Tolu:** [00:50:23] Anyone interested, go ahead and tag me and [@kaya](https://twitter.com/kaya) [@kthomas901](https://twitter.com/kthomas901). You can also visit her website, kayathomas.info, or you can email her at kaya@hey.com. Tag any woman, you know, or people of color that are interested in becoming a software engineer or a UX or UI designer.

[00:50:47]so that way we can share any advice that we have for them and hopefully move them to our side. I appreciate you taking the time to join us on this episode, Kaya. it was so lovely to hear your experiences and get [00:51:00] some great insight from you on what it's like to develop these products that we design screens for.

[00:51:08] **kaya:** [00:51:08] Thanks for having me. Tolu This was a lot of fun. Thank you for listening to the UI narrative podcast. If you like what you hear, make sure to show this podcast and love by commenting and subscribing where you listen. You can find me on Instagram and Facebook [uinarrative](https://www.instagram.com/uinarrative) or Twitter at [uinarrativeco](https://twitter.com/uinarrativeco) I also respond to emails at hello@uinarrative.com Talk to you later. Bye.

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