SUBJECT A

Can you tell me a bit about your background like what you work or what you have studied?
I got a four year degree in computer science and right now I work at a company on a product. The front end is built with electron and we use a web framework called webex as well some other like JavaScript libraries and then the backend server is done with scala which is kind of like a derivative of Java.
In school I did a lot more P5. I led a project for a brand new library. They had this big 21 ft video wall. I worked at the school radio station as well and and we built a music visualizer for the radio station we made SVGS of tall buildings of downtown and the windows lit up with the right frequency and then we had like these origami birds in each one of those it was like in online listener and in like the sky colour changed for the different music formats. that's one of the biggest P5 project I have done.
For another class, it was a computer music course and I built a music tool to make the music live so it's like I had nearly two dozen circles and each one of those was a sound sample and then I put it on this 3D plane so the further back on the plane the quieter and then left and right was the pan. In addition to like making some videos for other classes, teaching basic P5, I have done some work on the actual p5 website as well.

So you have been a part of the development of P5?
not so much the library but updating website resources

Are you still actively involved in it?
Occasionally, the last commit I made to the p5 website was in january.

How involved are you generally in the creative coding community?
I keep up with several subreddits, especially the generative subreddit, commenting and giving feedback on peoples pieces. I have consulted with a guy building an application for processing, where you draw on a canvas and export that as a processing sketch. it's one of the things I want to get more into because generative design and creative coding is more where my interest lie but Ive just been super busy

for your day job is it mostly front-end or back-end that you personally work with?
pretty much the full stack. I definitely prefer doing the front end, I try to take more of these tasks but I touch pretty much the full gambit

I want to get into a little bit about the project that you mentioned. If we start with the visualising wall that you talked about for the radio station can you talk a bit about why was it chosen to use p5 for that project?
It was kind of a toss-up, we could have gone with either P5 or processing because it's just a easy graphics library. It was is a team of 5 but in reality it was really kind of me and another guy who did the bulk of the work and the other guy was a design student so he knew some coding but doing some really complicated graphics library would have been difficult, but the biggest deciding factor was that it would be easiest to do this as a web application because that wall can usually just easily run like a Chrome browser essentially. So that was the biggest deciding factor, plus between

processing and P5 I prefer P5 and Javascript in general.

when you say that you prefer to have it running in a browser is it because it's easier to communicate with?
For the art project on that wall, it pretty much just runs the Chrome browser in the background anyway so having the visualiser hosted on a site just made it really simple

had you used P5 before that project or was it completely new to you when you did it?
I have done some toying around with it but that was the first major work I'd done with P5

how was it to do that first big project in P5? how was it work with the library itself?
The library itself super easy I think the biggest learning Curve for me at least at that time was that I had done some job in Javascript using create.js which is another canvas drawing framework and the API for that one is not intuitive, so p5 was definitely easier in that sense. I think the bigger part was just learning about like graphics things, like pushing and popping with ???. I think the biggest challenge we had was converting. I talked about the the origami looking birds. The designer drew that out in Adobe Illustrator and then we had to convert that painstakingly over into P5 like shapes that can move, so the whole Sprite animation was a bit more difficult

Do you think that would have been easier to do some other way? How did you feel afterwards, was p5 the best choice for the project?
Yes, I still think p5 was the best choice for the project but there are libraries that are more based for games and stuff, that require sprites, that are easier, but I think for the project as a whole I'm glad we used p5

You talked about the the music course where you used p5 as well, the one with layers, why did you choose p5 for that? There are probably other libraries that are also good for sound
I mostly chose p5 because I wanted it to be something, I projected the application while I was doing the performance so the visual part was super important. The sound part was, I did all the recordings separately and then imported them as mp3s. It was pretty simple to set up and make. the biggest problem I had with that was that I could only really do maybe a four-five minute piece because I was doing so many samplesand I guess the garbage Collection isn't super good because I would start like running out of memory. I would get a few glitches in the sound and then more and then everything would just kind of deteriorate. I tried to do a similar piece for that big wall for a class and we had we used three.js for modelling and then I was going to use P5 to run the sound and we had this background animation going on behind the three.js layer but there were just so many sounds playing that after like a minute or two everything just like deteriorated so that was annoying but I think P5 sound is made for a game sound where it would last a second.

what would you say given your experience what is the best or the primary use cases for P5?
the primary use case for P5 would be creative coding in general, in the sense that it's

going to be probably in a pretty defined space or canvas. I would never use P5 outside of some specific web page just showing off a sketch. P5 is really great if you want to do something like processing but in Javascript, you dont plan to put this out anywhere you just want to make cool sketches and save those. Or kind of the projects I talked about before where it's going to be like a very specific place where this is going to run because something I find that is difficult with P5 is scaling, if you're making a website something you have to think a lot about is what does this look like on a desktop versus a phone, and making those kind of calculations where you do things with pixels and stuff and P5 can be pretty difficult. so creative coding but in a very defined space

do you have some favourite examples from what you've seen for how P5 has been used, something that you would really like to bring up if someone asks what is P5 and you want to show them like this is the coolest thing you can do with P5?
Nothing immediately comes to mind. I would probably just pull up the p5 website and show some of those examples or go to any generative subreddit, most of the time people dont necessarily post "here is my processing" or "here is my p5" sketch code, but most things you could do in any of those creative coding frameworks.

You already mentioned that you have used create.js and three.js. Are there other libraries or frameworks that you have used and Im specifically talking about web based tools for creative coding in some sense
for a hackathon internal to the company me and a friend, we used SVG.JS because we were building a generative design application, a lot of our marketing materials are equilateral triangles that kind of fit together and in order to stay ahead of the marketing team time we made an application that generates new patterns and then you just click save and now you have an SVG file of these patterns.
I did a tiny bit of D3, but those are just graphs, I havent considered that creative coding. And even create.js wasnt necessarily used for creative coding, it was for a lab at the university and I was helping build a logic tutor program so the create.JS canvas part was for drawing out the problems. For creative coding I would say it has mostly been p5 and a little bit of three for a project

three.js is mostly for 3D stuff, but how would you compare p5 to three, what are the pros and cons of each and in which case would you choose P5 and in which case would you use three
p5's 3D is about as minimal as a 3D Library can go. I think it's fine if you had not really done any 3D programming and just wanna get your toes wet with making some 3D objects and doing lighting but if you ever actually wanted to like a 3D thing to show off three is far better.

you mentioned svg.js, is that something you can compare to p5?
you could definitely make some cool stuff with SVG.JS, it has a lot of the same API calls for drawing shapes and stuff. it's not as expansive obviously but a huge benefit is that it's super easy to save as SVG files and use in other applications whereas there is not, you can save off bitmap images from processing sketches but I don't think there's a way to easily save off an SVG of it

is there anything else you want to add, any final thoughts, final opinion on P5

or creative coding tools for the web in general?
I really hope that creative coding, especially P5 because it's on the web, grows in popularity especially amongst teaching people to code because the very first thing that I did in high school when I was learning to code in a class was, it was a c++ class but we did this application called Turtle where you would say "pin down red", "go forward four", "pick up and turn left". There is this drawing application where you control a pen on the screen and I definitely think, because I'm more of a visual person than a lot of people in computer science, having this instant visual feedback. I think the very first class in university, everything was just command line, math calculations and stuff. Having this visual input definitely makes things way more fun and I definitely think for beginners JavaScript is way more accessible because it is in a Browser which everyone knows and it's easy to share. I just hope that schools and people start learning more with that, especially people who are not as technical, it is a lot more accessible.

You had also led courses where you have used P5?
yeah, for a technical writing course, for our final project we made two or three videos that are intro to programming but it was using P5.