Luckily, I found an opportunity to work on Aurora, and I took that, I grabbed that, and then, yeah, and so here I am.

 And since being a student from Space Physics background, it has always been an aspiration, a dream to be a part of NASA,

 and I think I'm very glad and I'm fortunate. I've been, as I said, I've been... at the right place at the right time, which helped me to, to be a part of this amazing organization.

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 the ORAU podcast.

 Welcome to Further Together, the ORAU podcast.

 As ever, it's me, your host, Michael Holtz, in the communications department at ORAU. And I'm really excited to be kicking off a series of podcast interviews with some of our NASA postdoctoral program fellows and the first one on my lineup I'm so excited is Shipra Sinha and Shipra I just want to say first of all welcome to the podcast

Thank you so much.

I know you're in India and you're having a stay up late to have this conversation. So I really, really appreciate you doing that for me.

Thank you so much, Michael.

 It's a pleasure to have a conversation with you today. Awesome. So I want to talk about your fellowship. And I really, I guess, want to get started with,

 tell me about your current role as a NASA NPP fellow and then just a little bit bit about your background. Obviously you're in India, so you're from India and how did you get to the NASA NPP program?

 Right, so my journey was very interesting and I would also say that I was at the right place in the right time,

 to be honest. honest. So I was an intern at NASA for three months via the SCOSTA program. And I was there last year from December to March this year.

 So three months, yeah. I was under David Saibach. And at that time, I met a few people. I was lucky enough to be able to work with them.

 to collaborate with many new scientists there to learn what they're working on. I participated in the poster session which was held at that time. So quite a few events took place because that was also a time of New Year and Christmas.

 So some of the gatherings where I could meet people formally, informally, you know, and talk about work. So it gave me a lot of opportunity to talk to people. to understand what they are working on,

 to find common interests. And that's when I met Dr. Mee Ching -Fo, who is my MVP supervisor. So yeah,

 so my work up until now, like I have recently defended my thesis in September. I submitted before going to NASA and then in September I defended my pieces.

 So by that time I had mostly worked on data analysis of satellites that are run by NASA and NOAA and all those.

 And my work is about auroras, substomps and auroras and I mostly use the data sets of the satellites and ground.

-based instruments to perform even based analysis. When I met Dr. Mee Ching Fok there were some drawbacks in data analysis and satellite data analysis because you know we don't have the satellite information at all times in all locations.

 So for those for those period of time simulation is something that really helps. So she talked on similar topic but on the simulation part. So we kind of collaborated to bring together data analysis and simulation so that we can have a complete picture of any event that we are starting right.

 So that was the kind of joint proposal that I wrote this year in March and it got selected. which I'm very happy about. I can't wait to start joining NASA.

 I'll be joining January next year. January is my joining date, yeah. Awesome, that's so exciting. So, Shipra, I know you talked about studying auroras,

 and I know most people in the West are most familiar with auroras. probably the aurora borealis right in the north pole are there other are there other of those phenomenon elsewhere that people are not as familiar with or so so these auroras generally happen at the poles and we have two poles not pole and south pole of course so the north and northern pole light polar lights are called aurora borealis and the southern

 polar lights are called aurora australis. And they both occur simultaneously. But the only drawback is for measuring the south pole auroras is that most of the area is in the Antarctic region,

 which is, you know, hot air. to reach out and to take measurements of. So we study aurora borealis in a more detailed way because we have the liberty to,

 you know, install instruments, take measurements, which is a bit difficult in Antarctica. So, yeah. They are a simultaneous process. Like every time it happens in North Poles,

 it also happens in South Poles. I won't say it's... extremely symmetric but it's a phenomenon that occurs in both the poles here. So I'm guessing that you can,

 based on data from the north pole, you can surmise data from the south pole since they have been simultaneously. To some extent, yes. And we have polar orbiting satellites also and we have images installed.

 in those satellites which can also take pictures of all the goals so that way also we can have data sets. But then again there's a drawback of time and position in satellite measurements always.

 Sure, sure. Shipper, has science always been an interest for you, you know, from childhood, from school?

 where did that interest come from? - So yeah, I think physics was something that I've always been interested in since the very beginning.

 I won't say I was very clear on this part that I have to do particularly this type of science, but it was always physics that really amazed me and it's,

 you know, as a... me to understand what's going on in the universe. And I think in the, like still now, now also my plans are more short -term than a very long -term plan.

 And what I do is I look forward to do things that interest me so that I can give my 100 % rather than doing it for just for the sake of doing it.

 So it's so progressive. with time that, you know, I chose a topic of my interest. And then luckily I found,

 you know, an opportunity to work on Aurora and I took that, I grabbed that and then yeah, and so here I am. And since being a student from space physics background,

 it has always been. you know, aspiration, a dream to be a part of NASA and I think I'm very glad and I'm fortunate.

 I've been, as I said, I've been at the right place at the right time which helped me to to be a part of this amazing organization. That's amazing.

 One of my questions is, I think you've already answered is, you've already answered, you've already answered. haven't started your fellowship officially but being an intern for NASA obviously had a huge impact on your career because you now have the NASA fellowship to look forward to.

 Right, right. I think it's been a lot because you know once you're inside that organization you get a deeper insight of what people are working at currently and then what then.

 looking for to work on, you know, the topic of current interest, the missions that they are working on, you get a deeper insight of it. And then that helps you writing the proposal,

 reaching out to people to work with. So that's definitely, you know, I would say it had a very big hand in my career being at NASA.

 Absolutely. Absolutely. Shibra, have there been significant obstacles that you've had to overcome to get to where you are as a science and as a student?

 Oh definitely. I think whatever career path you choose, whatever path you choose in life, there would be obstacles. There were obstacles.

 You know, people are not not always supportive. Sometimes they're also hopeful of what you're doing, why are you doing, there are questions, there are obstacles.

 But I think the only thing that keeps me going is I know I have been working hard for it. And I know that if I,

 if I stop everything will end. end. If I keep on going, I will reach somewhere and yeah, I think there were 10 people who didn't trust me,

 but there was one person who can trust me and then that's enough. If there's one person to tell you that you can do it and to rebuild your confidence, sometimes that's enough.

 That's all you need. And I have been fortunate enough to have found that one person. every time I have a self -doubt. So yeah, right. Awesome.

 So let's talk about that because I know the mentorship and having that person who believes in you is so important. So if you can talk about that specific person or just,

 you know, how obviously you've talked a little bit about how that relationship is impacted. impacted your drive and your determination like I'm doing this because you know you're good enough and you have someone who believes in you.

 Right and definitely I have a handful of people who have always believed in me and I would say my constant support from the very beginning has always been my mom like she should use the one who has always pushed me in during the times where I had like lost confidence or I'm very,

 you know, disappointed or like not discouraged to be able in my career who have, you know,

 not been very supportive of me. My mom was always there. My supervisor is also a person who I would say has taken one extra step for me.

 Maybe not every guide would take and I was fortunate enough to have not one but two supervisors. So one of my first supervisor,

 he retired and then I was transferred to. another one, but they both have guided me officially and officially. And another person that I would want to name is David Saibak.

 So David Saibak, I don't know, I don't have enough words to express how grateful I am to him. Like he's one of a kind, like I haven't met a person who is so student friendly so kind and so supportive to students and I think he has brought a big difference in my career.

 That's for sure. He sounds amazing and again like you found the right person at the right time. Right, right. With everything. Super.

 Will you do your fellowship? fellowship from India when you come to the States? Yeah, I'll be coming in January next year. Okay. And I'm sorry,

 did you do your internship in the United States as well? Right. Yes. Yes, I want to get to your from India. You grew up in India. Yeah. Is cultural,

 getting used to cultural changes and that sort of thing. when you're in the United States. So there were a few things that was different for me.

 I won't say that it was a cultural shock, but it was different. But you know, I was fortunate to have met some amazing people in the United States right from my supervisor to my landlord,

 my landlord Paul. he was so amazing like he helped me with every small and like getting from getting a SIM card to my social security number, everything he helped me out.

 Also, I have a handful of Indian friends from those dogs in NASA at Goddard itself. And they were there when I was an intern.

 So I never felt like I'm away from home because they were around me. I would like to name some. like Nitin he's also a postdoc at Goddard with Ushi and then some of the interns like Pooja and Ganesh so they were there and we were a bunch of I think seven to eight Indians so I never felt like away from home to be honest So you sort of had your little family,

 your... I did. I did. I had festive time when I was there. It was Christmas, it was New Year, so I was hanging around with my friends enjoying the festive season, so it was pleasant.

 It was amazing. My stay for three months in Maryland was one of the best, I would say. Wonderful, wonderful. I know collaboration plays a big part.

 in the scientific process, and we've touched on this a little bit because of your internship, but talk about the role of collaboration as you look ahead to the start of your fellowship and how important that's going to be for the research that you'll be doing.

 Right. I think I'm in general a people's person, first of all. Thank you. And second of all, I, I strongly believe in collaborating minds towards tackling one problem,

 because you know, we researchers sometimes when we think about a problem, we are very unidirectional. And we think in certain a way and we do,

 you know, it so happens that when you talk to someone about your problem, and their simple questions can give you, a little bit of a little of the points that you were ignoring while having a unidirectional thought. So when two, three minds work together or more work together,

 you tackle a problem in a multi -directional way, which definitely you know eases your, I want to ease,

 but it definitely makes makes it more wide. Your thought area makes it more wide. You can have strong discussions.

 They can tell you where you're not thinking it thoroughly or where you're thinking it wrong because when you do self -analysis, you just kind of get lost in your thought and you don't understand your own mistakes or where you are lacking.

 So... So also, when you're working with people who has more experience in your field, you definitely get to know. And they give you a better insight.

 They are more experienced people. So a group of people having different areas of research always helps and better in tackling a problem.

 And I really feel-- [AUDIO OUT] feel like I am a team player so I like to work in collaboration. They're gonna be young women listening to this podcast,

 young researchers up and coming following in your footsteps. What do you say to the team of people who are coming after you? So first of all,

 I would say that you need to have confidence in you. You need to believe in yourself before anyone can believe in you. You need to know that you can do it.

 And it's not just for women, it's for everyone. For women, I would agree that there are a few extra efforts that we have to take. We have to also fight the society and patriarchy.

 patriarchy to you know to prove ourselves but find people who motivates you and who you know shares their positive positivity with you don't pay attention to people who pulls you down like you will always find the kind of people it's It's up to you What you choose to listen and what you choose to just neglect?

 So I think staying positive staying motivated and having confidence Are the key points to be successful or to keep going in life in any area?

 Find the people who are going to keep you lifted up as opposed to leaving you down, so to speak. And be that for someone as well. That's a great point,

 right? You have to, you know, you have to lift others up as you're going along. Right, right. Last question for you, Shipra. What brings you joy? What brings me joy?

 Okay, so there are many things. First of all, good food. happy faces,

 positive minds, and I think good scientific results. Awesome.

 When you have new work on something and you get a good result, it definitely brings a lot of joy. joy. It means her work was worth it, right? I love that.

 Sikra, I would love at some point, you know, when you're a year or so into your fellowship to have this conversation again and just see where you are and talk about the progress that you've made.

 So I hope we can do this again. More than happy to do that. It was lovely having. a conversation with you. I hope this would have continued for more time, but I know there are people in line,

 so I appreciate your time tonight. And thank you again for staying up late for me. I really appreciate it. I look forward to seeing you again soon.

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