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00:00:11,190 --> 00:00:13,990

My name is Vikram Shyam, and you can call me Vick.

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00:00:13,990 --> 00:00:19,539

I am a research aerospace engineer at the NASA Glenn Research Center in Cleveland Ohio,

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00:00:19,539 --> 00:00:23,840

and I'm originally from India where I did my high school.

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00:00:23,840 --> 00:00:29,419

I work on new aero-propulsion concepts involving biomimicry, energy harvesting, and flow control,

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00:00:29,419 --> 00:00:34,140

and the aim is to reduce fuel burn, noise, and emissions for aircraft.

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00:00:34,140 --> 00:00:39,239

And I'm also part of the rocket university project, which is a 12-person team to go through

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00:00:39,239 --> 00:00:42,220

the entire life cycle of a flight mission.

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00:00:42,220 --> 00:00:49,539

I've always been interested in the sciences—math, physics, biology, and also how they interact

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00:00:49,539 --> 00:00:53,079

with society, politics, history, sociology.

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00:00:53,079 --> 00:00:58,999

And I found that aerospace engineering is a neat way to bring all of these things together

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00:00:58,999 --> 00:01:02,120

and apply them to aero-propulsion and space propulsion.

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00:01:02,120 --> 00:01:08,420  
And this took me to The Ohio State University where I got my bachelor's, master's, and Ph.D.

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00:01:08,420 --> 00:01:13,300  
And I did a co-op while I was doing my Ph.D. at Ohio State with NASA, and that's how I

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00:01:13,300 --> 00:01:14,680  
ended up here.

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00:01:14,680 --> 00:01:21,280  
I'm inspired by several people: my family, my professors, as well as my mentors here

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00:01:21,280 --> 00:01:22,910  
at NASA.

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00:01:22,910 --> 00:01:26,960  
Also, I take a lot of inspiration in my work from nature.

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00:01:26,960 --> 00:01:30,290  
And that feeds into my interest in biomimicry.

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00:01:30,290 --> 00:01:35,290  
I think nature has solved a lot of our problems, and all we have to do is look for the right

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00:01:35,290 --> 00:01:36,290  
answers.

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00:01:36,290 --> 00:01:42,310  
The Asian Pacific Islander group—advisory group at NASA represents the interests of

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00:01:42,310 --> 00:01:47,140

the Asian Pacific Islander community here  
at NASA, as well as the broader community

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00:01:47,140 --> 00:01:49,320

in the Cleveland area.

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00:01:49,320 --> 00:01:55,270

The members of the group are responsible for  
organizing several events and festivals to

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00:01:55,270 --> 00:01:57,720

which the public is invited.

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00:01:57,720 --> 00:02:04,070

Also, the individuals are involved in outreach  
activities, such as tutoring, STEM programs,

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00:02:04,070 --> 00:02:07,030

as well as social welfare activities.

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00:02:07,030 --> 00:02:12,160

I think it's very important for children at  
an early age to be exposed to interactive

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00:02:12,160 --> 00:02:19,060

learning, such as the distance-learning network  
that's being run by NASA Glenn.

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00:02:19,060 --> 00:02:22,200

I think a lot of learning is visual.

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00:02:22,200 --> 00:02:26,780

And so learning by doing—having children  
come over to facilities like NASA and get

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00:02:26,780 --> 00:02:30,230

their hands on experiments and try to play  
around with the facilities that would be a

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00:02:30,230 --> 00:02:36,550  
huge lift to their morale and guide them towards  
a STEM career.

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00:02:36,550 --> 00:02:42,030  
I hope I've been helping the students that  
I advise at Cleveland State, as well as the

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00:02:42,030 --> 00:02:45,960  
interns who come over here during the summer  
and that will be coming over this summer as

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00:02:45,960 --> 00:02:46,960  
well.

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00:02:46,960 --> 00:02:50,290  
I also like to have a lot of visitors and  
guests and show them around the facilities,

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00:02:50,290 --> 00:02:54,640  
and I really hope that's benefited them and  
helped them to get ideas on a future career

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00:02:54,640 --> 00:02:55,640  
path.

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00:02:55,640 --> 00:02:58,260  
I don't think I've had my greatest accomplishment  
yet.

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00:02:58,260 --> 00:03:04,040  
I would say that the thing I'm happiest about  
is that I've managed to interact with so many