

Jon Spooner: [00:02](#) Hello and welcome to Live from The Space Shed, a podcast all about space and science hosted by me, Jon Spooner and me

Mini Jon: [00:12](#) You mean me

Jon Spooner: [00:12](#) Sorry yeah, I mean you

Mini Jon: [00:13](#) Mini Jon!

Mini Jon: [00:14](#) Mini Jon! Long Story Short, a few years ago I accidentally set up my own space agency based out of the shed at the bottom of my garden. Turns out that if you go around telling people you're the Director of Human Space Flight Operations for the Unlimited Space Agency wearing an orange space suit, more people than you might think want to play along and now British astronaut, Tim Peake is our patron and he took me with him to space.

Mini Jon: [00:38](#) He took *me* with him to space

Jon Spooner: [00:39](#) Yes yes. Alright. He took *you* with him to space. So Mini Jon became UNSA's first astronaut.

Mini Jon: [00:45](#) Woohoo!

Jon Spooner: [00:47](#) Since then we've been touring in UNSA's mobile headquarters, The Space Shed, to festivals like Latitude and Blue Dot, telling stories, talking to some super cool space and science people and we've recorded our chats so you can find out about their amazing work as well.

Mini Jon: [01:03](#) I need a wee

Jon Spooner: [01:08](#) Well you should have gone before we left the house shouldn't you. For this first episode of Live from The Space Shed space doctor Kevin Fong joined us when we landed in The Faraway Forest at Latitude Festival. As well as holding a day job as a flying A&E doctor, Kevin also works regularly with NASA (cool), makes documentaries and podcasts about space for the BBC (cool) and nearly actually became an astronaut.

Mini Jon: [01:33](#) Like me!

Jon Spooner: [01:33](#) Yeah, like you Mini Jon.

Mini Jon: [01:37](#) I really need a wee

Jon Spooner: [01:37](#) You can go in a minute, we're nearly done, promise. Among loads of other things, Kevin and I chatted about how he became a space doctor and what it's like to fly in micro gravity on the vomit comet, and he answered questions like 'is God an astronaut?' and 'discuss whether we need to be wearing more or less eyeliner in space?'. Big issues. So let's go.

Mini Jon: [01:58](#) Go!

Jon Spooner: [01:58](#) Yeah, go!

Mini Jon: [02:01](#) Go!

Jon Spooner: [02:01](#) Sorry, I forgot. You need to go, right, yep.

Mini Jon: [02:06](#) Go Go GO!!!

Mini Jon: [02:06](#) Enjoy the first episode of Live from The Space Shed. Hold it in! Cross your legs!

Jon Spooner: [02:23](#) Yay. Hello, my name is Jon, Jon Spooner. I am the Director of Human Space Flight Operations here at the Unlimited Space Agency. Welcome to UNSA HQ, The Space Shed. Give it up for The Space Shed. Hey, hey. Hey. Who thought it was going to take off. Everyone always laughs. It's like I'm genuinely trying to get this thing off the, in fact, it's only resources that, uh, that are stopping us from getting this off the ground. It's like anything, you have enough money you could, so if anyone's got a spare few mil lying around, speak to me afterwards, we can come to an arrangement about how you could be co-pilots in the Shed the first time we get off the ground. Okay. Uh, well maybe we'll send a hat round. Let's, so later today we're here all weekend. Hello. Welcome. Come in. Make yourselves comfortable, just don't sit on a pine cone. So, we're here all weekend and I'm going to be telling stories, having conversations with very cool people. Two o'clock today we're going to be telling the story of How I Hacked My Way Into Space. I really did. And at four o'clock today we have professor John Butterworth who is a collider physicist. If you wanna find out what that is and have all your questions answered about the large Hadron collider that he's here, but before then have an excellent guest for you, someone who I've wanted to have in the Shed for a long time now. He is a doctor, a medical doctor. He flies helicopters to rescue and save people's lives. He's worked with NASA, the European Space Agency. Would you please welcome into The Space Shed. Now give a massive Latitude welcome to Dr Kevin Fong. Kevin, welcome to the shed.

It's a real pleasure to have you here. I'm sorry that we didn't do the launch for you today.

- Kevin Fong: [04:04](#) I'm sure we could work on that.
- Jon Spooner: [04:05](#) You are, as I just said, you're a doctor, a real doctor. You're also a space doctor because you've studied many, many different things. Do you have a job title?
- Kevin Fong: [04:14](#) No. Well, not one that really works. So I, my day job is being a doctor for the NHS. Uh, I work on one of the helicopter emergency medical service ambulances, but I've also spent a lot of time working with NASA. So, um, I am a space doctor.
- Jon Spooner: [04:30](#) You're a space doctor. We were talking about this earlier, it's quite a circuitous route that you've taken into having to give yourself a title of being space doctor, because you studied astrophysics to begin with when you left school.
- Kevin Fong: [04:40](#) Yeah, that's right. I was a very badly prepared teenager and so studied astrophysics because the university applications handbook is alphabetical. And I thought oh, astrophysics looked cool and so I applied for that. Um, but I had wanted to be a doctor. I'd always wanted to be a doctor really. But my school didn't send many people to medical school and I thought you had to be really, really clever to do that. But then in my second year of university, I lived with medical students and I, one night I came home and I took a long, hard look at them. I thought, how hard can it possibly be? So I did that.
- Jon Spooner: [05:13](#) Any other doctors here? Any medical students here? Put your hand down and we do not want to interact. How hard could it be to become a doctor? But you did, you did, you did your astrophysics degree and then you studied to become a doctor as well.
- Kevin Fong: [05:28](#) Yeah. And then after that was it, I thought was, you know, there was no more space exploration for me, but towards the end of the medical degree, the thing that led me into medicine in the first place was my love of science. The thing that made me love science was space. And so I really thought, well look, I always wanted to be two things. When I was growing up, I wanted to be a doctor and I wanted to be an astronaut. And so I'm about to be a doctor. Let's try do the other one as well. So I, uh, wrote loads and loads and loads of letters to NASA saying, can I come and work with you and eventually they said stop writing letters

and just come and work with us at Johnson Space Center. So I didn't, I worked with medical operations group.

- Jon Spooner: [06:03](#) This is fantastic. This is the classic route in. This is what I hear all the astronauts talk about that it's hard work. Say if you want to be as over achieving as Kevin, work hard and be persistent. Keep writing the letters until they say stop writing to us.
- Kevin Fong: [06:17](#) Oh yeah. They literally said stop writing. So.
- Jon Spooner: [06:19](#) And then you went out to NASA
- Kevin Fong: [06:22](#) I went out to NASA and the first time I went there, I was at Johnson Space Center, which is where mission control is. And, and that's like, um, uh, you know, it's like Disney world for adults. There is just every ride you could want to go on and they let you go on some of them. So in the mornings they'd lecture us on how to look after their crews in space and the things that are likely to kill their astronauts and why we had to stop that happening. And then in the afternoons they take us out on the training modules. So they had space station mock ups. Uh, they, that decompression chambers, um, and right at the end they put us on, uh, this, this plane that they used to simulate microgravity. So weightlessness, which is called the parabolic flight trainer, which sort of makes you weightless for about 23 seconds at a time. But I mean that is a ridiculous aircraft. So it's basically like the sort of aircraft that you would go from London to Paris on it with all the seats stripped out, no windows and then everything's padded and then it cruises along at 25,000 feet, about three quarters, the speed of sound and then it goes nose high for about 45 degrees, which is a steep as you've ever been in any aircraft. And then the pilot, then idles the engine, so it's now just coasting so you can't, all you can hear is the wind rushing past the aircraft and it noses over the top in a parabola and for that 23 seconds you are floating around inside the, the plane like you're in space and it is amazing. It does that maneuver 45 times over the Gulf of Mexico in an hour and a half and nearly everybody vomits.
- Jon Spooner: [07:50](#) The vomit comet.
- Kevin Fong: [07:50](#) The vomit comet
- Jon Spooner: [07:52](#) It's extraordinary, it's something I would love to do. Well, I say that I, it sounds awful. Quick show of hands, how many people would like to go nose high 45 times and then literally fall out the sky? So it's a good half. It's a good half. Who's, who's absolutely

not? An equal number of people going, no, that sounds disgusting.

- Kevin Fong: [08:14](#) It is great. They even, they give you a lecture on what to have for breakfast beforehand. So they said like a big old English fry up very antisocial and um, they tell you to eat citrus fruit because it tastes about the same on the way up as it did on the way down. So, um
- Jon Spooner: [08:29](#) And it's easier to get out of clothes
- Kevin Fong: [08:31](#) And, and it's true.
- Jon Spooner: [08:33](#) So this will all this was before then in 2009 European Space Agency, we're recruiting and as you know, uh, the patron of the Unlimited Space Agency is Tim Peake, the British astronaut who was the only Brit that came through that process. But you were another person. How many people were going through this process?
- Kevin Fong: [08:50](#) So it was crazy. So I didn't think I was going to get chance to apply for astronaut corp because European Space Agency, NASA select every 18 months or so. And I'd worked with them a lot and I've looked at their process. Um, but it takes a long time to become an American. So I didn't decide to do that. And then space agencies selects every 15 years and I thought, there's not going to be a selection in my time frame while I'm still young enough. So 2008 actually they announced one and we were living in Houston at the time and I thought this is it, I've got to apply, and there were 10,000 applications for what in the end ended up being about six spaces. And, and it was pretty hardcore application process. They narrowed that down really quickly, uh, to around about 500 people. And then I was down to that rounds and then they took us all out to Germany. Uh, and, and then this place in Hamburg where for the entire day as far as I could tell they had, us just basically playing video games. So it wasn't so wasted. And you know, Atari was not such a wasted thing in my childhood. Uh, but unfortunately I hadn't played enough video games, um, because the next round after that I didn't get through. So that was it. So Tim Peake did better than me.
- Jon Spooner: [09:57](#) But this is tough as well, isn't it? Clearly, because there is that split between scientists, engineers, medic, but it's going to be one, I don't think there were any medical doctors that were selected in that round.

Kevin Fong: [10:06](#) No. They were really, really looking for military pilots and people with multi engine jet experience. So, and I didn't have actually back then, I didn't have any flying hours, so, so, so yes, I wish I'd done more flying.

Jon Spooner: [10:18](#) But you do now. You fly helicopters now?

Kevin Fong: [10:21](#) Well, you say that I sit in the back

Jon Spooner: [10:24](#) You said that

Kevin Fong: [10:24](#) I said that, yeah um, I sit in the back, we've got two brilliant pilots up front and then I'm in the back with the paramedic, uh, an amazing, amazing paramedic. And really the doctor in that system, you know, uh, you're along for the ride until you get to scene and then they spit you out and you do your thing.

Jon Spooner: [10:40](#) But you are trained, you're learning to fly, or you do fly?

Kevin Fong: [10:43](#) I do fly and I'm, I'm trying to do more flying lessons. It's hard to fit it all in.

Jon Spooner: [10:47](#) The dream is still alive.

Kevin Fong: [10:48](#) Uh, yeah. The dreams kind of still alive.

Jon Spooner: [10:51](#) I see you're part of their gang. No sat there. No. We've had this conversation. The dream. But 500, the last 500 out of 10,000. That's very cool. Did you get any feedback as to what it was that meant you didn't get through at that point? I don't want to sort of dwell on the failure, but I suppose what I'm just trying to stress is it's really hard to become an astronaut, it's an extraordinary thing and it's a lot of people's dreams, but there's lots of other roles that you can play working in space. But, um, what was it that just stopped?

Kevin Fong: [11:23](#) I mean they genuinely, they really like their pilot, you know, actually if you look in the astronaut corps, they're much closer to being pilot engineers than they are anything else, and so, you know, there was not a single person selected in the final, actually there was only one selected in the final six, I think, who had not had significant time piloting an aircraft, not just uh, you know, not just a light aircraft, these were multi-engine high performance aircraft mostly. So they liked that because they consider people who fly aircraft to have made decisions upon which their own lives depend on. That's the best model they

have for that. So, so I guess that might've been part of it. I don't know for sure.

Jon Spooner: [12:00](#) No. Okay. But basically very, very cool. Well done. Um, in amongst all of the doctoring and the space doctoring, you also work as a TV presenter. I don't know how you fill it all in. You've made some really very excellent, beautiful programs. Beautifully filmed programs, my favorite being the one about extreme environments. But then I don't know if anyone saw this, but this was, you wanna describe the extreme environments program

Kevin Fong: [12:20](#) It was fantastic fun to make, that one's called To Boldly Go and we sort of looked at all the extreme environments that the body can be exposed to. And it is an amazing thing because you know, really for most of human history as far as we really like to dwell around equatorial latitudes in shorts and a t-shirt, and it was only really very much later that we started striking North and South. And then even then, it's only been the last century that we've been able to go say to the South Pole, North Pole, to the tops of our highest mountains, forget aviation, forget going into space. So this was a program that was all about what you need to do to protect the human body against these environments, which you know of which space is the most extreme. So again, it was just a nice big excuse for me to get on a bunch of very fun things and have a go on them.

Jon Spooner: [13:02](#) You did some extraordinary things and they'll be some of the things I was watching like, uh, the training in cold water and having to escape from vehicles. Like what was the, in terms of extremity, what was the most extreme for you? What was your favorite?

Kevin Fong: [13:12](#) Oh gosh, there were so many favorites in that. We did the helicopter underwater escape training, which, which sounds terrifying, but it's actually quite good fun. That's where they put you in this, this carcass that it looks like the inside of the helicopter and then they chuck the carcass in a swimming pool and then it flips over and sinks and then you have to punch your way out of it and swim out, otherwise you die. So, so it's to train you how to get out of a sinking aircraft. And helicopters sink really quickly because all the weight is on the top. And so if you get 15 seconds warning, but if your aircraft fails over, well, if you ever fly in a helicopter, I know it feels exciting, but the rational response is fear because they're very, very complicated vehicles, and if they go into water you get about 15 seconds warning and then it flips over and sinks at about a meter a second. So you've got very short time to get out, which is why we trained to do that. That was great fun. The worst thing was

the cold water shock, which was, which was horrific. So the reason that even strong swimmers drown in, um, cold water is because there's this thing called cold water shock, where you immediately start gasping really hard and then you really just can't move your muscles. So, so even though you think I'm a good swimmer, if my life depended on it I could swim, you really, really can't in cold water. And so to show this, they took me to a swimming pool that was about 12 degrees Celsius, which doesn't sound that cold, but if they just put you in it, uh, it's horrible. And that was the most awful five minutes of my life. Awful.

- Jon Spooner: [14:38](#) It didn't look like you are having a good time.
- Kevin Fong: [14:40](#) I had no fun.
- Jon Spooner: [14:42](#) No, and since you brought it up actually, there's been a big social media campaign recently about how to survive in cold water. You might know this, but I think it's worth repeating. The thing to do if you do find yourself in cold is not to flap around, but is just to float.
- Kevin Fong: [14:52](#) Yeah. Take a big breath in and try and hold it and try and lie on the surface and wait and not to panic, but it's, I can't stress enough that I, water looks inviting, especially on a hot day. But if you, if you jump into it out of the blue, you're going to find yourself in difficulty. Even if you were the school captain of the swim team at the time so, don't do it.
- Jon Spooner: [15:11](#) Everyone got the message. Excellent. This summer you are back at NASA
- Kevin Fong: [15:15](#) This summer I am back at NASA, yes. Uh, so, uh, towards the end of the summer, I'm very lucky. I'm, I know quite a few people in the astronaut corp still. And the thing I've become really interested in is how these elite teams do what they do. How do you take a group of people, get them together, get them to gel and then do something as amazing as, you know, fire them off the surface of the earth or, or get them to as we saw in Thailand recently, you know, get them to rescue people when it looks impossible. And I think that's come what I have, all the things that I've done, that's the unifying theme. You get groups of otherwise ordinary people, you get them to make, do these unbelievable things. And I kind of want to know more about that. So I'm going back to look at mission control, going back to look at some of the astronauts and, and, and look very closely at their training and particularly how they manage risk

and, and, and how they basically do something that should be routinely fatal and make it the stuff of, you know, science fact.

Jon Spooner: [16:06](#) This is very cool work that you're doing. I really love the angle that you're coming at there, which is taking that, we were talking earlier and I know that all you guys that are working in that way in the NHS saving lives are very modest about it, well we're not, it's just the job, but applying it in that way is one of, maybe you could come and do that with us at UNSA because we're regularly, I'm regularly putting us in potentially fatal situations trying to launch sheds.

Kevin Fong: [16:30](#) Yeah, looks like you do need some health and safety.

Jon Spooner: [16:34](#) As you've heard. Kevin has a huge amount of experience. He's an astrophysicist. A medical doctor, he's worked with space agencies, done extreme training. Now is your opportunity, if you have any questions that you've ever wanted to ask about, who's got a question for Kevin?

Audience: [16:46](#) [Asks question]

Kevin Fong: [16:49](#) Oh, so that was a question about the Astronauts: Do You Have What It Takes? program. So we made the series, which is a lovely six part series with me and the Canadian astronaut called Chris Hadfield. That was all about, we took 12 scientists really, scientists and doctors to see, put them through really realistic representative astronaut training, and to see if any of them would really have made the cut. And these were 12, the best qualified people you'll ever see and we washed out at least 11 of them. So the question was are we going to make a second series. Well, I would really love to. Um, there are no plans to make a second series at the moment unless people in a forest had a massive, massive writing campaign. Uh, um

Jon Spooner: [17:27](#) We can do that, we can do that, right?

Kevin Fong: [17:31](#) It's Latitude, we can definitely do that. Um, I would love to actually, uh, and it was, I mean, of all the things I've ever wanted to do in TV, it was to make a series that sort of inspired people the way I was inspired when I was growing up to pursue science. And I think that was the message of that one for us. That's what we wanted to put across, which was all those people who had at one time or another in their lives wanted to be astronauts and they were, between them, you know, one of them was surgeon and one was a fighter pilot for the RAF, one

was a commercial airline pilot, couple of them were explorer researchers. And so, you know, second place is pretty good.

Jon Spooner: [18:00](#) Yeah. Did you have anything to do with the application process selecting people for that?

Kevin Fong: [18:04](#) So we didn't, so they get a different production crew who do that because there's a, partly it's, it's basically partly a reality format, but what we didn't want to do this time is what happens so often in other shows of that type is you sort of turning the contestants on each other. So you select these people and, and in other shows they select them deliberately so they hate each other. Uh, and we didn't want to do that and we didn't do that. And, and I'm glad we didn't and I think it was a better show for it.

Jon Spooner: [18:27](#) Anyone here apply for that? It was just me. Okay. But I mean we've just been asking for some feedback as to why. I mean, I know I'm not surgeon or, I mean I can see why I wasn't selected. So it's a shame I can't be bothered with a second series. Let's not do that.

Kevin Fong: [18:41](#) It might be the eyeliner.

Jon Spooner: [18:43](#) I think you need more unique, we had some people in this space yet last year and they wanted, the question was 'how can we queer space?', you know, that was a proper Latitude question. I think more eyeliner in space is something that we should be, that's a letter campaign I can get behind. Who's up for, there's four of us up for, five, six of us up for quick, seven, yeah you see it's a rolling campaign. Let's queer space. Thank you for that question. There was a gentleman here in the middle

Audience: [19:07](#) Do you know of any major accidents that have happened in space?

Kevin Fong: [19:10](#) So there've been lots of, well there've been several notable accidents in space. So space is incredibly dangerous and most of that is the engineering because the energy you need to impart to our vehicles to get into space is, is literally the same sort of energy you'd have in a small nuclear weapon. So when we used to be at the launches as medical crews, I used to sit at Cape Canaveral as part of medical crew and we'd be wearing flight suits and we'd be sat next to a fleet of Black Hawk helicopters. And we were stood up two miles from the launch pad and, and, and we were dressed in flight suits not to look cool, but because if the thing blew up, we would then climb into the aircraft and

fly away from the explosion for quite a long time and then hang in the air until it was all clear and then land back down to go and rescue whatever was left, which wasn't going to be very much there is apart from two crews of fireman when you launch one of those vehicles, there was no one within two miles of it. Well that's in America. And the firemen sit in a literal armoured patrol car at one mile.

Jon Spooner: [20:06](#)

What about in Russia? Just since you mentioned it

Kevin Fong: [20:08](#)

Yeah, in Russia, in Russia, you're much closer. Well that's, that's, that's the Russians. That's how they do everything. And so there've been massive, so there've been horrible accidents at launch in the history of space flight with the rockets exploding. Of course there's two space, there's two space shuttles Challenger and Columbia that that exploded. Um, Challenger on launch, Columbia on re-entry, killing everybody on board. There was the Apollo 1 test fire which is because they had a, uh, the capsule was full of 100% oxygen and a spark caught that and the whole thing flashed over. And then on top of that they'd been very near misses. So there's been miraculous close shaves. So like the Apollo 13 disaster in which on the way to the moon, one of the Apollo aircrafts experienced an explosion which disabled their vehicle, which left them unable to land on the moon or get home and somehow, somehow NASA got them back. So people always ask, did we fake the first landing on the moon? That's not the one that I think they faked. It's the Apollo 13 rescue. So yes, there've been loads and loads and loads of near misses. It's unlike any other occupation for the fact that your life is in peril every second of every day and death waits for you about that far away on the other side of your pressurised hole.

Jon Spooner: [21:23](#)

And there's a huge amount of learning take from it as well. It is awful and horrible and tragic like the Apollo 1 fire on the launch pad, but the learning that comes from that is extreme. You learn such a huge amount by those people putting themselves at that risk as well.

Kevin Fong: [21:36](#)

So yeah, I mean I've been studying this quite a lot recently and and Apollo, it's 50th anniversary Apollo next year, and that is the first moment in history where to push back the frontiers of endeavour really, you had to be more than just a single gifted person or indeed a small group of very, very gifted people. You suddenly had to be this sprawling army of literally thousands and thousands of people all knitted together by technology. Um, and, and with that, if you get it right, it can be, you know, the sort of stuff of total science fiction. It looks like science

fiction. But that's why people don't believe it, it's because together that thing can be so amazing.

- Jon Spooner: [22:17](#) I totally agree I'm so glad that you brought this up. I think that's the thing that I was getting at earlier about the astronaut selection process. Anyone, anyone here grow up as a child thinking I want to be an astronaut? Anyone here an astronaut? Just me. Um, but there's like you say, there's thousands and thousands of other jobs that are absolutely those people that are involved in human space flight, you'll still be involved in those missions, but so many different things in engineering, in medicine, in programming, all those jobs and they're all available to, to anyone, particularly if you're young and starting. I'm just wondering, woman in the front row, you were here last year, right? And you are about to go off and study. Where are you studying now?
- Audience: [22:54](#) Falmouth
- Jon Spooner: [22:54](#) Falmouth and you're studying illustration. You didn't do the science thing but are you illustrating, you illustrating going to space?
- Audience: [23:01](#) Yeah
- Jon Spooner: [23:01](#) You actually are.
- Kevin Fong: [23:04](#) Awesome.
- Jon Spooner: [23:04](#) That's cool. And also, there's a guy, Leo. Is Leo here? There he is. Um, you saw this last year and your parents were telling me earlier that uh, as a result you've now gone on to do astro chemistry, waiting to hear. So there's loads of routes in that, uh, really, really working.
- Kevin Fong: [23:22](#) The thing is that when it comes to space exploration, although the astronaut is simply the most visible element of that exploration, but actually everyone who works in the industry explores space. So I made, my favorite film that I made actually was called Space Shuttle Final Mission and that was the last mission of shuttle after 30 years of flying. We talk to everybody involved in that mission, and my favorite couple were the guys whose job it is to lock the door of the space shuttle before it launches and they have a key that's like the key to the space shuttle that's got a big key fob on it. And in any other walk of life, well I'm not sure what they would be doing, but when you ask them what they do, they say, oh, when it goes into space, a

bit of me goes into space, I explore space and that's their sense. And every single person who works in that organisation is an explorer of space. You think of space explorers as being Neil Armstrong and Buzz Aldrin, but it is every single person who works in the program from the bottom to the top and, and the astronauts are simply the tip of the spear.

- Jon Spooner: [24:20](#) Very cool. Thank you. Um, another question for Kevin? Gentleman here.
- Audience: [24:25](#) Is God an astronaut?
- Jon Spooner: [24:25](#) Is God an astronaut? There's, there's a question for you Kevin.
- Kevin Fong: [24:30](#) Yeah, that a small question for a morning at Latitude. We didn't cover that, uh, when I was at NASA. Um, possibly, is the only useful answer on that one. There's Arthur C. Clark said, didn't he when he was talking about civilisations that might be capable of visiting, uh, the said, any civilisation that is managed, is capable of crossing the enormous Gulf of distance between us and other star systems, distances which are really impossible really to imagine, he said for those civilisations, any sufficiently advanced technology they would have, would be indistinguishable to us, would be indistinguishable from magic. And so in that sense, I don't think any aliens ever have come to Earth, uh, personally for lots of reasons. But if there were any here, they would be indistinguishable from magicians or religious figures I think.
- Jon Spooner: [25:31](#) I am an alien.
- Kevin Fong: [25:35](#) Show us the magic.
- Jon Spooner: [25:36](#) I think that you've, you've had your own question answered perfectly. Yeah, he's nodding. He's really happy with us. Like really good one. Well done.
- Kevin Fong: [25:42](#) Good.
- Jon Spooner: [25:42](#) I've time for one more question I would say, so don't be shy.
- Audience: [25:55](#) So, if you wanted to change career at any time of your life, what would be the advice that you would give to somebody looking to get into your line of work?
- Jon Spooner: [25:55](#) What do you do for work?
- Audience: [25:57](#) I'm a programmer

Jon Spooner: [25:57](#) You're a programmer and do you mind me asking how old you are?

Audience: [25:59](#) 29

Jon Spooner: [26:00](#) 29. You've been doing programming for about eight years. Are you thinking about a career change?

Audience: [26:06](#) Obviously

Jon Spooner: [26:06](#) Yes. Okay. So just for clarity, so if you were at 29, just say you were a 29 year old programmer that was looking for a career change to get into space, Kevin, what what would your advice be?

Kevin Fong: [26:16](#) I think actually that changing career massively is, is going to be the norm in the future, and certainly the norm through coming generation and people like yourself. I mean, I've done it, I've done it over and over again. The first time is the hardest time. Uh, when I went to my, my tutor and said, I know you've trained me up to be an astrophysicist and I know I've finished and you've helped me, but I want to be a doctor now. That was hard. But everything that came after that was much easier and I think that the future, because the future is now so unpredictable because the pace at which technology changes it. But I think all of us, the idea of a job for life has gone and not in a bad way. I think that you have to reinvent yourself over and over again. So I think that's necessity. So I think that's good. It's not, it's not a worrying thing. And I think specifically for you, I mean, you are in the ultimate adaptable profession. You're numerate, you know how to code, you know how to solve problems so you could choose to re-skill as anything. I mean, I didn't qualify medical school until I was 28. Uh, I didn't. Uh, and then when I went to medical school, I went to NASA. I'd done my degrees before that, but, but when I was at NASA, I realised that you had to be, you had to understand more about engineering to work with them closely. So I did a degree in engineering when I was 35 and I don't think that's the last degree I'll do. And I think that in life now it's essential that you reinvent yourself over, over again. And I talk to people about this now, but you know, everyone asks you what sort of doctor you want to be when you grow up, um, when you're at medical school, and I've realised that for everybody, the only correct answer to that is you want to be Doctor Who really, and I say that because, because the right approach I think to life now is to, you know, to reinvent yourself over and over again and take a little bit of what you learn in the past with you, but be okay with being fundamentally different each time. And so that's the

way forwards. And so there should be nothing, there is nothing that stops you from doing that. If you want to work for EC, you can work for EC, if you want to work for NASA you can do that. Just have to write a lot of letters and annoy them.

Jon Spooner: [28:23](#) It's very, very beautiful piece of advice. Thank you very much. Hey, it's going back to that thing? Work hard, annoy people. Just keep asking. Can I go space? It works. Worked for me, it'll work for you. Kevin isn't going to be running away, I don't think, so if you were maybe a bit shy or didn't get an opportunity to ask a question that you really had a burning question to, he's going to be here, you can grab him, it's a festival. Don't actually grab him. That's probably inappropriate. We're going to be back here at two o'clock telling the story of How I Hacked My Way Into Space. Going to be here at four o'clock with Professor John Butterworth. Please do come back. If you want to join the Unlimited Space Agency, it is free. See any of the ground crew, they've got little cards that you can take away with you. They have all the details on it, but for now would you please give a massive Latitude thanks to Dr Kevin Fong. Kevin, thank you so much.

Jon Spooner: [29:12](#) Thanks for listening to this episode of Live from The Space Shed. Next time, I'm chatting with astro physicist and science communicator, Dr Jen Gupta, so please subscribe on Apple Podcast, Spotify, Google Play, wherever you get your podcasts. You can follow us on Twitter and on Instagram at @untheatre. That's u-n-theatre and you can find full details and social links at our website, thespaceshed.com.

Mini Jon: [29:33](#) I'm finished!

Jon Spooner: [29:33](#) I'll be there in a sec MJ. So please share the Space Shed love on all your social channels. We would love to hear what you're enjoying about the podcast. Live from The Space Shed is an Unlimited Theatre production with season 1 brought to you in association with the Science and Technologies Facilities Council, the Cockcroft Institute, The Space and Arts Council England. With special thanks to Dr Rob Appleby of Manchester University. Our theme music is 'Go!' by Public Service Broadcasting used with their extremely kind permission. Our sound engineer and editor is Andy Wood with visual sound design by Elena Pena. The show is produced by Jon Spooner, and Alice Massey with support from our friends at Storythings. Live from The Space Shed is an Unlimited Theatre production on behalf of the Unlimited Space Agency.

Mini Jon: [30:13](#) Can you come and wipe my bottom!?

Jon Spooner: [30:13](#) I really feel like you're old enough to be wiping your own bu..

Mini Jon: [30:15](#) Pleeeeeease

Mini Jon: [30:18](#) Fine, fine. I'll be there in a mo. See you for more Live from The Space Shed soon.