Welcome to the OpenAI podcast, the podcast that opens up the world of AI in a quick and concise manner.

Tune in daily to hear the latest news and breakthroughs in the rapidly evolving world of artificial intelligence.

If you've been following the podcast for a while, you'll know that over the last six months I've been working on a stealth AI startup.

Of the hundreds of projects I've covered, this is the one that I believe has the greatest potential.

So today I'm excited to announce AIBOX.

AIBOX is a no-code AI app building platform paired with the App Store for AI that lets you monetize your AI tools.

The platform lets you build apps by linking together AI models like chatGPT, mid-journey and 11Labs, eventually will integrate with software like Gmail, Trello and Salesforce so you can use AI to automate every function in your organization.

To get notified when we launch and be one of the first to build on the platform, you can join the wait list at AIBOX.AI, the link is in the show notes.

We are currently raising a seed round of funding.

If you're an investor that is focused on disruptive tech, I'd love to tell you more about the platform.

You can reach out to me at jaden at AIBOX.AI, I'll leave that email in the show notes.

Welcome to the AI Chat podcast, I'm your host, Jaden Schaefer.

Today, on the podcast, we have the pleasure of being joined by Kofi, who serves as the VP of strategy and business development at Elroy Air, which is an innovative aerospace startup pioneering autonomous cargo delivery systems with a track record of making some strategic partnerships with giants like FedEx, NASA, Lockheed Martin.

He's been instrumental in driving Elroy Air's mission to revolutionize, express logistics and enhance global quality of life.

So I believe his insights into the power of AI have positioned him as a really powerful thought leader in both aerospace and AI.

Welcome to the show, Kofi, super happy to have you on.

Yeah, thanks for having me, good to be here.

So we're super excited, like I said, to have you on the show.

The question I really wanted to kind of kick this off with in asking you is like, how did your journey in the AI field begin?

What led you to Elroy Air?

Give us a little bit about your background.

Yeah, happy to.

So, you know, I've been here at Elroy for almost five years now.

Before my time at Elroy, I was actually over at Uber.

I was under the advanced technology group.

We're building autonomous trucks.

And then we had an opportunity to go after and launch something that's called Uber Freight.

So it's the trucking side of Uber.

And so, you know, we thought about it as like, you're going to have these autonomous trucks are going to be out there in the world.

But there's also this low hanging fruit of being able to digitize the brokerage industry for trucking.

And so we, we launched that and it scaled like crazy continuing to scale.

And, you know, while I was there, I also had an opportunity to build a company within Uber Freight that I call Powerloop.

And this allows you to load trailers ahead of time, get the power unit, connect over to it.

And that's the bridge between, you know, Uber Freight and autonomous trucks because you swap out the trailers at that, at that location.

But I realized pretty quickly that, you know, not only is trucking and logistics going to change, you know, in a pretty near term, but aviation as well.

And so I had the opportunity to connect over with Dave, the founder of L-Ray Air and realize I was building the same thing on the ground that he was building in the sky.

And so that's what got me into it.

Very cool.

Yeah.

Very cool.

So tell me about, you know, some of the, the big transitions you think we're going to be seeing, and I guess kind of what AI is unlocking right now in what you're working on.

Yeah.

You know, I think, zooming out, obviously, I think AI has a massive role in so many different sectors and, you know, almost don't even think about it as an industry, but more of just a tool that's going to be enhancing every industry.

The way that, you know, we're thinking about autonomy broadly for us is there are so many missions where you need a pilot to be able to deliver critical goods, but those environments could be really, really challenging or risky for that crew or that pilot.

And so, you know, our goal is to make it so that you never have to make that decision between being able to get those critical goods to a community and then, you know, risking that pilot or that person's life.

You can actually just get it over there and depend on that.

Yeah.

Very cool.

Yes.

I think I can see some massive value to that.

I mean, we've all seen, like, pictures of those pilots and helicopters rescuing people off the top of mountains in really bad situations and all sorts of things, so, yeah, that's really incredible.

I'm wondering, you know, are there any insights on the challenges and breakthroughs in developing,

you know, an autonomous vehicle, takeoff and landing system that you could share with us?

Yeah.

You know, I think for us as an integrator, we actually, we feel like the time is now to be able to build these types of systems, you know, between engines, batteries, motors, powers, even distributed electric propulsion, which adds a whole other level of redundancy for these aircraft.

For example, in, you know, traditional helicopters, there could be one or maybe even like two points of failure for a system like ours.

If you, there's eight motors and kind of rotors and propellers, you could lose up to two or three of them and still be able to complete your mission.

And so now you have just a safer, exactly.

Yeah.

Now you just have like a safer option.

You also are able to do this new wave of, I think, more environmentally friendly systems, a hybrid electric aircraft, kind of thinking about it as like the Prius of what was going on before.

Okay.

And then there's obviously all these all electric aircraft that are going to be able to do a great job as well.

Okay.

Very cool.

Very interesting.

I guess my other question is then, you know, I mentioned in your intro some of the, some of the partnerships that have been forged, but I guess how have, you know, strategic partnerships with companies like FedEx, NASA, Lockheed Martin kind of influenced the trajectory of Elroy Air's innovations?

Yeah.

It's been really, really helpful.

FedEx is actually, I mean, we publicly announced with them about a year and a half ago, but you know, they've given us product insights since the beginning.

And so if you look at the configuration of our aircraft, we have the actual cargo pod itself decoupled from the aircraft.

And so you can load the cargo pod ahead of time.

And then, you know, the aircraft will come over taxi it and be able to take off.

What we learned pretty early on from specifically the, from FedEx was that we would need to make that cargo pod, you know, as large as possible because they, from a volume perspective, a lot of times it could be shipping something that could be pretty small, but the actual package should be, you know, a little bit larger.

So they're going to volume out before they wait out.

And so we were able to do that.

And then with the Air Force, you know, and, you know, groups like Lockheed Martin as well,

you know, Lockheed Martin to the investor, we have contracts with the Air Force.

We wanted to make sure that we built a system that was going to be useful for both the commercial and military resupply.

And so being able to put those critical goods, food, medical supplies, whatever you need into that shipment means that those might end up being pretty bulky and heavy.

So we can actually have a separate cargo pod for those as well.

Yeah.

Okay.

Very interesting.

Now, of course, there's a lot of people that are kind of looking at this space.

I mean, I see some of the work you're doing.

And when I hear it, I'm like, oh my gosh, this is incredible, it revolutionizes so much.

I think a lot of people are getting really excited, of course, about AI and a lot of other things.

I'm wondering what advice would you give to individuals who are kind of just starting out in AI and aerospace fields, kind of based off of some of your experiences? Yeah.

You know, I think there's maybe two or three things that have been helpful for me, hopefully they're helpful for other people too.

One is to try and think about where you imagine the future of this space is going to look like in the next, I would say, like 10 to 15 years because aerospace just takes a long time to truly be able to disrupt.

And so, you know, think about where you think the world's going to look like then and then try and get to a place or get to a space that's early in that process so you can become a subject matter expert in that by the time it's, you know, ready to take off.

The other one is to celebrate the short-term wins along the way.

I mean, it's a long journey being able to build these companies.

I think the typical path is around like a decade or so from, like, design.

Oh, wow, yeah.

Certification and commercialization, very different than a lot of the rest of Silicon Valley.

So you have to be prepared for that.

And it's like, it's a marathon with a bunch of sprints, but like celebrating those with great people.

So grateful because we do have such a good team, like people you really enjoy working with.

We have this mantra of, you know, tough on ideas, but kind of people and I think that's helped us retain a lot of great talent.

And then the other one is really more of a ton of a concept around diversity, right? Like the idea that this world's going to look fundamentally different specifically, like our industry is going to look different in the next decade or so means that it could be also built by people who look different.

And so, you know, independent of what your background is or your role or, you know, any of those pieces, I think it's a space for a diversity of thoughts, diversity of people can come in and actually, you know, make a big difference.

And I think that's actually going to be why it could look different, you know, if you'd spelled by people who also look different.

I love that because I feel like, you know, the more diverse perspectives, backgrounds, ideas that you bring into a company, I believe it's the more innovation and the more success it's going to see at the end of the day.

And so, yeah, I love that it sounds like you guys are focused on that over there and you're kind of seeing some of those changes and shifts in the industry that I think a lot of value. I guess as you kind of look to the future, you know, how do you envision the integration of AI and areas like energy infrastructure and consumer electronics and kind of everything that you're working on over the next decade?

How do you see that playing out?

Yeah, you know, I think at least the way that I'm processing this personally is that I believe that AI is going to allow people to do a lot more of the interesting work, the work that they actually care about, and then also help us just solve problems a lot quicker. It's possible that, you know, some of the things that we can't even anticipate, especially in the next decade, could be possible if we're able to enable AI to be a part of actually coming up with those solutions.

I think generative AI has a really healthy space and a lot of those are ready, and we're already seeing so much of that impact.

But you know, broadly speaking, I just anticipate that we'll be able to create new jobs that can be very stimulating for a lot of people and then also start to create new markets because we're able to solve problems even faster with AI.

Isn't it?

Okay, very interesting.

And I think you're probably spot on with those.

Something else a lot of people talk about, and I've gotten a lot of questions, I'd love to pick your brain on it.

You know, based off of your perspective, what are some of the ethical considerations and challenges that you see as AI kind of starts to reshape industries and consumer experiences? I mean, integrating automated aircraft into what you're doing, what are some of the ethical considerations people have to think about?

Yeah, I think part of this, I was kind of grouping it into two different categories.

So there's one, which is regulation and how do you make sure that you're doing everything in a safe and efficient way.

And then the other one is about kind of complementary jobs or being able to take care of that delta and the demand versus supply that's going on for a lot of really critical roles.

So let's start with regulation.

And you mentioned NASA, it's been great working with NASA over the last few years, and they're thinking about airspace integration and how are you going to have autonomous vehicles

in the sky interacting with manned, piloted vehicles in the sky?

And so making sure that we make sure that we do that as safely and efficiently as possible.

And I think there's like a crawl walk around that the FAA talks a lot about.

So that's the world that's I think going to happen for autonomous cargo, also even flying taxis that want to use autonomy.

Our thesis is that you can actually go into places that are pretty low risk, so flying over water, rural environments, those are likely going to end up being the best places for you anyway.

And so we think that's where you're going to have that intersection.

And so that's regulation.

On the other side, I mean, we saw this with autonomous trucks, other Uber Freight and seeing the same thing in the aviation space.

There's a delta.

So there's a gap between the number of drivers, number of pilots that are currently out there and the demand for those drivers and pilots.

And that gap is likely to just continue to expand and grow as you know, the supply, private dwindles or the demand itself continues to like exponentially grow.

I think with Express Logistics, this is just continuing to be the case, you know, a lot of consumers with their goods as quickly as possible.

And once you have that effect of being able to get something in two days or the same day, it becomes a norm and then that kind of pushes your expectations and a lot of the things you get.

Right.

I can't go back from the one day Amazon deliveries.

Exactly.

Exactly.

You know, the World Bank tells us that over a billion people are disconnected from reliable roadways.

And so, you know, people like you and I get the benefit of being able to have same day shipping here.

But there's so many places that haven't even had an opportunity to touch that yet.

And so, you know, our goal is to try and make sure that we can actually connect over there. But I think the pilot and driver shortage is a real one.

And so we imagine that, you know, from an ethical standpoint, making sure that you're focused on places where there are those gaps so that you can actually fill in something that's critical there and then also start to replace certain jobs that are dangerous and putting people at unnecessary risk.

And that's what I was mentioning earlier about some of the places that might be tough to get to, but you still need to be able to service those communities.

Tell us a little bit just for people that haven't, you know, they don't have any background on your company.

Tell us a little bit about what the vision of the company is, like, are you just focusing

on kind of the hardware?

Are you just focusing on the software or combination of both?

Where do you see this?

Is it going to become a robo tax taxing company?

Is it going to become just a logistics company?

Where do you kind of see, you know, Al Roy air?

Yeah, we're building an autonomous cargo aircraft, doesn't require pilots on board, doesn't require airports with vertical takeoff and landing.

It's hybrid electric, so there are some great companies focused on all electric vehicles and flying taxis because they're typically doing shorter ranges.

We're actually going to be doing longer ranges, and so that's why we do hybrid electric.

You also don't need that charging infrastructure.

So when you think about servicing humanitarian markets or military resupply or rural commercial deliveries or any of those, they're likely not going to have superchargers there.

And so for us, that's what we're building.

And, you know, the idea, the vision for us is to expand the reach of express logistics to everybody on the planet, and we believe that if you're able to do that, you can actually improve quality of life all over the world.

It's like the light of civilization to get your goods as quickly as possible, especially the critical ones.

And so that's where we want to be.

That's yeah, I see some massive value.

It's impossible, I think, for people to argue that that's not going to have a massive net benefit on society being able to, you know, let's say there's some disaster strewn area and you're able to go in and drop in like critical supplies to troops or to other areas. So that's really incredible.

One area that I think, you know, perhaps people may criticize you for or just kind of this area in general or have questions about that I love to pick your brain on is, you know, what happens to the labor market?

A lot of people complained.

I mean, you have experience with logistics and trucking, right?

A lot of truckers saying, hey, we have all these autonomous trucks, is everyone going to lose their jobs?

Maybe pilots might be thinking the same thing.

What is what's your guys is kind of thinking an approach to AI and how it impacts that?

Yeah, I think that's a good question, and I think that's what I was alluding to earlier.

The specific market since I'm just going to speak from like our sectors and the ones

that I was a part of before can't really probably make a broad statement about AI in every industry.

But just thinking, but yeah, but just thinking about, you know, aviation and then thinking about trucking, that's where that gap between the number of drivers and pilots that are out there and then the actual demand for the drivers and pilots are.

And honestly, you could go, you could have many companies doing probably tens of thousands

of missions and, you know, making billions of dollars and generating a lot of revenue and, you know, really disrupting the industry and still maybe not even put a full dent and just being able to address that gap.

And so there's so much work in front of us, I think over the next decade to even just do that.

And then when it gets to the point, theoretically, like let's fast forward a decade or two decades when it gets to the point where now you have all those complimentary roles taken care of, then I think the next piece is also starting to substitute the dangerous roles, the roles that people don't want to do, the ones that take them away from their families.

And I think you live in that world for a foreseeable future before you're likely necessarily disrupting or, you know, taking away a lot of the jobs right now.

And so that's our thesis about the way the market is going to be growing over the next couple of years.

Yeah.

I think you're, I think you're spot on with that.

I think it would be pretty hard for someone to argue that it would be a bad thing to be able to have an autonomous aircraft that could go into perhaps, you know, a dangerous war-torn country that has the chance of being shot down.

For example, I think it'd be hard to argue that it should have a human in there when you could do that autonomous and, you know, save human life.

So I think, yeah, I think you guys are doing some really impressive things.

I'm really excited about something I would love to ask you about is kind of like with the rapid advancements in AI, how does Elroy Air plan to stay ahead of the curve and continue to innovate?

Obviously, you guys are on the cutting edge right now, your head, but as we know, a lot of times, you know, when companies get to the front, sometimes they get complacent and they might miss a wave of, and that's the next technological advance or, you know, advancement. So what is Elroy doing to kind of, you know, stay on the top of the curve there? Yeah, you know, the good thing is for space like ours, like we, you know, we consider ourselves a disruptor and innovator, but there are plenty of them out there and we are all, there's a whole ecosystem that are also complimenting each other.

So in terms of AI in particular, there are actually some great companies that are thinking about aerospace integration and making sure that the aircraft can detect and avoid thinking about beyond visual line of sight and essentially having the instruments of the aircraft be able to make some of the decisions while it's up there in the sky interacting with the rest of the world.

And so there are plenty of companies that we're actually excited to partner with. And I think because we're an integrator, we can be a little bit more agnostic to whether or not our specific components are going to be the ones that are the best or whether or not we want to integrate other ones from some of our partners.

And so that's the way we're looking at it is like, as these other technologies come on board, we're happy to use them if they're the best option and if there's something that

we feel like we can do the best job of, we'll do that as well.

Very cool.

Yeah, I think that's probably the right, the right framework and frame of mind to make sure that you're staying ahead of the curve on that.

Looking forward, you know, what's your prediction on the next big breakthrough in AI and, you know, its potential impact on society?

And you know, I mean, maybe looking specifically at areas that affect what you're currently working on.

Yeah.

I mean, I think specifically for aerospace, I'm excited for how AI can help enable more airspace integration between autonomous systems and then manned aviation.

That's the one that I think we have a little bit more light of sight to.

My wife's actually a doctor, a pediatrician at UCLA and I'm excited about everything that can happen in health care as well and, you know, just helping us solve for so much more. She's much smarter about those things than I am.

So I'm not going to be getting to like that and what that could look like, but I think there's so much that can happen in health care that actually truly like will improve our quality of life over the next couple of years, so I'm excited to see that. Yeah.

Yeah, that's actually really cool to you and your wife having those two perspectives. I absolutely love any time I see integrations of AI and science, like when I see AI models being used for drug discovery or to, you know, better target and treat diseases. It's so fascinating, so exciting.

But also what you're currently working on in aerospace, you know, I truly believe is an area that's going to, like you said, net increase the quality of life for so many people on this planet and also, you know, really help to fill that shortage of pilots, especially where there's areas that are, you know, high risk or dangerous.

And so, yeah, I think that's some really incredible stuff that you guys are currently working on.

Kofi, thank you so much for coming on the podcast today.

It's been incredible to pick your brain, get your insights, see some of the really innovative stuff.

I mean, truly, right?

Autonomous freight delivery.

I don't know how much more innovative it gets than that industry.

I'm wondering is there, if people are interested in looking at some of the work you're doing or companies are interested in partnerships or other things, what's a good way for them to find Elroy Air or to reach out to you?

Yeah.

Feel free to reach out to us over at Elroy.

And I mean, my email is just my first name at ElroyAir.com, so Kofi at ElroyAir.com. I'm happy to connect with anybody.

And I enjoy catching up with you too.

Thanks for all the questions.

Yeah.

Thanks so much for coming on.

I'll make sure to leave a link to Elroy Air in the description of the show.

But thanks so much for coming on and to the listener.

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