Transcript

16 May 2025, 07:38pm

Interviewer 0:24
Actually, no, that this actually is designed in a way where you don't have to be an expert on anything. I just need your viewpoint and you know, based on your perspective and your professional opinion and you know, just your view of the world will give me insight. So did you get a chance to read the other attachment or would you like me to go through some of that?

SH25_Police Officer 0:31
OK.
I didn't read it, so maybe you can give me a Cole's Notes version.

Interviewer 0:57
Yeah. OK. So you've heard of AI this, AI that… you know lately, all of this stuff. And So what AI is .. is some really complex software algorithms. They do different things that were that are not repetitive and they're, you know, they basically do stuff that humans can do thinking wise and so.

SH25_Police Officer 1:03
Yep.

Interviewer 1:22
That's where they're now able to drive cars, make recommendations….

SH25_Police Officer 1:26
Yes.

Interviewer 1:27
You know, they're able to do facial recognition, stuff like that, right and so.

SH25_Police Officer 1:31
Mm hmm mm hmm.

Interviewer 1:34
…unfortunately, the designers themselves do not know how they work on the inside, so we, us, engineers being engineers, we just throw a bunch of data in there. We tweak a few things in the algorithms, tell it whether it's right or wrong, and then just make it redo the calculations all over again. And so there not transparent, they're opaque. They're like black boxes. You can't see inside. And about 10 years ago, this initiative came about called explainable AI, where it's trying to break into the black boxes because you know, for obvious reasons, they're doing some really important things in the world and so explainable AI was trying to…it has been trying to look inside to give people perspective on what these things are doing and how they come up with their outputs.

SH25_Police Officer 2:17
Hmm.

Interviewer 2:28
But us engineers, being engineers, we design stuff for ourselves. We just care about the functionality, right? Does it work? But…I started about three years ago in this PhD programme and I said hang on, an explanation is not one thing, even though it's ubiquitous and it's universal, it's not one constant thing. Like depending on the situation and the person, it'll be a different explanation. OK, so. So, you know, we're always asking why questions. We're asking, "Why did the aeroplane crash? Why did you know the economy tank? Why did you know our friends get divorced?" All of that kind of stuff. And depending on who's asking the question, depending on the situation, the answer is going to be very different. So I took this…

SH25_Police Officer 3:03
Hmm.

Interviewer 3:26
The concept of explanation from the social sciences and I made a taxonomy to help explainable AI designers. I'm saying before you even come up with an explainable AI model to give people an answer, first figure out the context. Who's asking, what they're asking, and so this is all about that. And I'm testing out this framework. And

so what I'm doing is I'm doing … a I'm doing a bunch of interviews involving a car crash, with an automated vehicle, an AV OK and it's a real life example.

SH25_Police Officer 4:00
OK.

Interviewer 4:03
And it's documented and everything and what I'm doing is I'm asking people across society, so lawyers, engineers, AV drivers, non AV drivers, judges, you know… pedestrians… about this scenario and say what kind of explanations do you guys want? So that's what this is about and people are coming up with some really interesting things. So depending on their lived experience, right? So …and I needed police officers so.

SH25_Police Officer 4:27
OK.
OK.
Mm hmm.

Interviewer 4:34
This is where you guys come in.

SH25_Police Officer 4:35
Hmm. Well, you got …you got three. I… I'm … I've been a police officer for eight years. I left very briefly for a year to be a firefighter. And before that I was a high school teacher. So I have done it all.

Interviewer 4:46
Oh, OK, cool. Oh.

SH25_Police Officer 4:48
Yeah. The next one, I'm, I'm think I'm thinking astronaut next. So we'll have to see.

Interviewer 4:54

Well, I've... I've got some info for you. Like back in my old days, I was, yeah, I worked in aerospace for over 25 years, so.

SH25_Police Officer 4:58
Yeah. Oh, wow. Well, I that that's beyond my capabilities. That's just i...t was just a joke.

Interviewer 5:08
Don't ... you .. you know what, don't underestimate yourself. You never know. OK, so you may be an astronaut. You don't know. OK, so.

SH25_Police Officer 5:13
Yes. Yeah. Gotta set your sites high.

Interviewer 5:19
Yeah, absolutely. So OK, so. This is not a test for you, OK, so you've got to keep remembering that, right? I'm just interested in your opinions, your questions. You know, your insights, your views, your perspectives, your thoughts. OK, so don't be nervous. Take a deep breath, and I'm gonna' describe the scenario for you first. Are you ready? All right. OK. So this case study scenario....

SH25_Police Officer 5:27
Yeah. OK. Ready.

Interviewer 5:51
Involves a real life case within the AI application of automated vehicles or AVS.

SH25_Police Officer 5:57
OK.

Interviewer 5:58
It involves the occurrences of actual car crashes of one particular AV brand called Tesla, and it's advanced driver assistance system called Autopilot. {connection issues interruption} ...

SH25_Police Officer 6:13
I'm here, yes.

Interviewer 6:14
OK, so Tesla's Autopilot system controls the steering, braking and acceleration functions of the AV without any assistance from the human driver. And furthermore, note that Autopilot could at any time disengage and hand over controls to the human driver. Now, according to USA's NHTSA, so that's the National Highway Traffic Safety Administration … administration of Defects Investigation said between January 2018 and January 2022, so a four year period, Tesla AVs with Autopilot engaged were involved in 16, as in 1-6 crashes where they struck highly visible stationary either in road or roadside first responder vehicles that were attending to preexisting collision scenes. So you had police, ambulance, fire trucks, road maintenance vehicles, people with high visible vests on, you know, lights flashing, everything … they're attending to another crash, and these Teslas just ploughed into them. It happened 16 times all over America, so also on average in these crashes, only in these 16 crashes, Autopilot aborted vehicle control less than one second prior to first impact.

SH25_Police Officer 7:28
Mm hmm. Yeah.

Interviewer 7:45
OK, so I have photographs from news articles and stuff. If you want to see that or we can just continue on.

SH25_Police Officer 7:54
Yeah, let's see some more like. You mean that you have you have photos of the damage?

Interviewer 7:56
Yeah, yeah.

SH25_Police Officer 8:00
Let's see. I'm curious to see how it even collided the back of a fire truck side of a fire truck.

Interviewer 8:04
Yeah. OK, so here we go. I'm gonna share the screen. There it is. Do you see it?

SH25_Police Officer 8:12
I do, yeah.

Interviewer 8:13
OK, so the first one is the 16 locations, if you will, across North America. Here's one on the right. Four firefighters were involved. Look at that. That's the Tesla. This is the pre-existing collision scene. Here's another one. Police.

SH25_Police Officer 8:18
Mm hmm. Yep. Mm hmm. Mm hmm mm hmm.

Interviewer 8:31
Struck here another one.

SH25_Police Officer 8:34
Yeah.

Interviewer 8:34
And another one here.

SH25_Police Officer 8:37
Right into the back of them, OK.

Interviewer 8:38
Yep, Yep. So and there's, you know, there's a link if you want. I can put it in the in the chat or you know where they do a CBS News … you know, investigation.

SH25_Police Officer 8:52
Yeah.

Interviewer 8:56
OK. All right. So any questions? I'm going to stop sharing and we can carry on any questions about this. OK. So I'm going to ask you one main question and I'm going to ask it a different a few different ways as the conversation goes, but it's just one main question and then I'm going to go into a bunch of secondary questions about the stakeholder group and the perspective you're bringing to this, so.

SH25_Police Officer 8:57.
Okay.

Interviewer 9:23
Based on this scenario that I described to you, you're seeking explanatory information about these crashes from Autopilot, so the AV system that was controlling the steering, braking, and acceleration functions of the AV so… When you're thinking, why did this crash happen? What kind of information are you thinking about? What's in your head and what do you want to know about the thing that was doing the driving?

SH25_Police Officer 9:53
Well, I would like to obviously know, one, in the scene, I guess the light and sirens were on or the lights were on so that the AI can interpret that the lights are on. But I guess maybe as the AI programmed to see lights and sirens and what that means to them, to the programming. Like even when you see, like in sirens, a normal person is supposed to, you know, yield and make way. Is that programmed into the AI technology, when it comes to Autopilot? Because that's what I would be curious about. They even say the natural,… natural person when they're driving, when they see lights and sirens, their eye brings them to that area, and they drive into the cars. That's why we're taught to be safe when we're doing it. But I'm wondering is… in is it programmed in AI Autopilot and what does it tell it to do if there's lights and sirens on the road?

Interviewer 10:48
Right. So, it is programmed to follow all of the rules of the road and all of the local laws, so speed limit, you know, avoid things, you know, don't crash that kind of thing. Like it's … it's. Yeah, it does have those features and functions in there. But something went wrong. OK, in in these 16 crashes.

SH25_Police Officer 11:04
Right. Yeah. And maybe … maybe when there's. … Yeah, maybe there's.
Most of the time when they're programmed, they see cars in each lane, right? So they're in lane one, lane two, lane three. I know that firefighters when they're blocking traffic as well as police officers, they're taught to block 2 lanes.

Interviewer 11:35
OK, Morgan, you, you cut out there, so please repeat.

SH25_Police Officer 11:35
I see that doesn't compute….Oh, I was saying maybe because when they're driving, like, if they're… they're the computer says, OK, there should be a car in the middle of lane one. There should be a car in the middle lane, two in a car in the middle of lane 3… And then basically, when firefighters and police officers go to a scene, they're taught to go 45° and take up…. An AI computer can't comprehend if a fire truck is in a 45° angle in lane one, lane, two, lane three and then it kind of just shuts off 'cause… It's like, oh, I've never seen this. … This algorithm before or something like that.

Interviewer 12:19
It's… it's possible that happened, but remember, it's supposed to recognise everything on the road. Like it's supposed to recognise people walking. It's supposed to recognise any kind of obstacle on the road. It's supposed to recognise traffic lights, you know the curbs everything. So these are big objects. You got to remember that. But you know, yeah, so. OK, keep going. Like so you're thinking about whether it recognised the scene ahead.

SH25_Police Officer 12:39
Yeah.

Interviewer 12:46
You're thinking about whether the angle of the police vehicles or the flashing lights may have confused it. OK, what else? What else do you want to know? Like…

SH25_Police Officer 12:52
Mm hmm.

Interviewer 12:57
If this was a human driver, what would you ask this human driver you know?

SH25_Police Officer 13:04
I would say did you see the lights, sirens or did you see the lights and did you see the apparatus blocking the roadway and if so, why didn't you stop or I would be like, yeah, what was the reasoning you continued to go forward into the vehicles, did you not see them? And if you didn't see them, what were you doing?

Interviewer 13:24
Right, right.

SH25_Police Officer 13:26
Mm hmm.

Interviewer 13:27
OK. Anything else about its decisions to basically steer, brake or accelerate like it didn't modify its direction? It didn't, you know, so do you have any questions about its decisions about those actions?

SH25_Police Officer 13:43
Well, obviously it didn't make the right decision, so I'd be curious as to why it didn't and why it didn't, why it didn't work in that moment.

Interviewer 13:47
Mm hmm.

SH25_Police Officer 13:51

And that's what I... that's what I'm trying to... my question would be, I would think there'd be something wrong with the algorithm of why it didn't 'cause obviously it could. I've seen videos where it veers off quickly if someone falls onto the roadway, and the Tesla veers over, but why didn't at this moment is my question. What? What was it doing? What was it computing at that time that it didn't recognise this as a as a "brake" kind of thing or?

Interviewer 14:15
Right.

SH25_Police Officer 14:16
"...steer to your left" kind of thing.

{Secondary Questions and General Discussion}

Interviewer 25:04
... So back to the first question. Do you have any other questions for Autopilot about what it decisions it took or didn't take, what actions it took or didn't take?

SH25_Police Officer 25:31
Right.
Well, you're talking about specifically the Tesla Autopilot, now, based on you telling me that was a Level 2?

Interviewer 25:54
Yes.

SH25_Police Officer 25:56
Well.

Interviewer 25:57
And the driver did not. OK, a lot of people ask me about the driver and I'm like there was a driver, whatever reason, they weren't paying attention. They did not take over.

SH25_Police Officer 26:08

Oh, so, so that was something in my head when you're … not actually the first time I got, I just assumed the driver wasn't paying. Like, wasn't there or wasn't paying attention. I was seeing it as those Waymos. So yeah, now that no one's.

Interviewer 26:20
There was, yeah. There was a driver and the driver was not paying attention for whatever reason.

SH25_Police Officer 26:27
Hmm, well, I wonder if….

Interviewer 26:28
Remember it. Alert it. It handed over control or released control, yeah.

SH25_Police Officer 26:33
Within a second.
Yeah. So, yeah, I… I again, I don't if my answer to my questions change, but it's like what happened like why …why didn't? Why couldn't it grasp the concept that there was first responders in front of them and why couldn't it come to the conclusion … and then it needs to brake and not run into the back of them? So yeah, I guess it's more so one, why didn't it do better? And then two, why didn't the driver see it before that one second of relinquishing control?

Interviewer 27:08
I don't know. They could have been sleeping. They could have been reading something. Cell phone. I don't know. We don't know. That isn't part of the reports, but we do know the driver was not paying attention, you know? And it's.

SH25_Police Officer 27:14
Yeah, yeah. And I wonder, I wonder, you said it was 16 times in four years. What are the stats of non-emergency vehicles of collision?

Interviewer 27:24
Yeah. There's more. There's hundreds of crashes with non-emergency vehicles and that's a separate database. There wasn't a pattern like this, that's why this one was

targeted for more investigation because it was first responders and it's a pattern, right?

SH25_Police Officer 27:47
What about the camera system? Like you know the... you know how the lens or like the how far it can project? You know if ...if me as a driver I'm driving and I can see lights over there I can tell that from a kilometre away I can tell that from almost a kilometre half away you can see lights depending on the time of day. So I'm wondering how far does the Autopilot of Tesla look?

Interviewer 27:53
Yeah.

SH25_Police Officer 28:10
In advance, and maybe that is why it didn't. It couldn't commute ... compute, compute that because it was two last minute for them. They didn't already start anticipating those at a kilometre away, maybe it's just they see what's in front of them within 100 metres and then once they got 100 metres to the ...to the lights and sirens, it's just like, oh, now what? And I couldn't think quick enough, I don't know.

Interviewer 28:35
Could be, could be. I don't know. Yeah. So yeah, could be, I don't know. So OK. Anything else?

SH25_Police Officer 28:47
I don't know. I don't know. I feel like I'm letting you down here. I... I don't know.

Interviewer 28:50
No, not at all. You've given me a lot of information so.

End Transcription for analysis .... general discussion continued