J & K - 2025/02/24 14:1sc9 SAST - Transcript 2

Attendees

Justin Germishuys, Justin Germishuys's Presentation, Kiyasha Singh

Transcript

Justin Germishuys: I'm just trying to close stuff,…

Justin Germishuys: but they don't want to close every time I hop on a video. So, while we're waiting for those things to kind of do their thing, what is that sound? Is that yours or is mine making sound?

Kiyasha Singh: It's a bit noisy,…

Kiyasha Singh: I think. So, I'm not too sure what you're hearing cuz there's a lot of birds making noise the side.

Justin Germishuys: No. It's more like gongs and…

Justin Germishuys: Okay, let me actually just close cursor completely. let's just quickly quit the whole thing.

Kiyasha Singh: Yeah.

Justin Germishuys: Sorry, I'm just trying to close all these instances of cursor because I'm busy with lots of projects and if I'm going to work live with you, that's probably just going to chew up a lot of unnecessary stuff. So, okay, let's just Okay, I do need all of this stuff mostly. Let's just kind of just

Justin Germishuys: But I'll be with you in just a minute. Just trying to clear this stuff up here. Probably need Close that. Do Okay, What am I Okay, I think we're good to go. All right, there you are. Okay, so now we have this. Let's just quickly open view the terminal.

Justin Germishuys: Okay, there are two. Obviously, that's not cool. Okay, so command and K allows me to just basically get AI to use the terminal for me, which is super useful. So, if I say create, and you usually want to start a virtual environment. So you'll go create vins and basically it creates a viual environment called virtual environment and then you can run that and now it creates a virtual environment.

Justin Germishuys: So basically, when you create a virtual environment, it's just better for file management because you're going to install packages and you don't want to do it on your full system because then you're going to break other things you're working with. So I created it. Now I just want to go into V and I always forget the commands. And so this basically just gets me in. You can see there's a virtual environment. And now I just want to pip install open AI so that I can use the API because those are the two problems that said now that's solved. And now I have all of the code that I would normally use for chat GPT or OpenAI's API already set up. cool.

Justin Germishuys: So here what I maybe want to do is say something like I want to create a simple agentic system with one with a supervised

Justin Germishuys: izer that takes an input and decides which other wait hold on let's do this quickly let's close this as well wait I didn't mean to close that so over here let's go to open AI API do what we maybe want to do is where is it? Not vector stores.

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Justin Germishuys: let's just quickly see where is that project APIs. Okay, let's try this So, this is the function calling documentation. I'm just going to use it all. Why not? Okay, let's go back here. so I'll say something like here's some function calling docs.

Justin Germishuys: I want to create two LLM functions as tools. one prompts explain it like I'm five and asking another part the function calling step takes an input and reasons about which of those two functions to use.

Justin Germishuys: Here are the do No, I didn't mean to push enter. Control V. cool. Let's see what happens. no. I didn't mean to do that. agent. right at the end make cyborg py with this cool or something like that. Sorry.

Justin Germishuys: This is just kind of like a first run just to see what a toy problem looks like. Otherwise, we start documenting things out in a purely theoretical way and we haven't actually experienced what something like this could look like. So, as you can see, it created cyborg. py. It's created an explained I'm five. and it's created the function calling JSON over here. So this basically says what if analyzes a hypothetical whatif scenario with creative and…

Kiyasha Singh: Yep. Not on my own.

Justin Germishuys: logical thinking. And so it looks at these descriptions to decide which tool to use. Right.

Justin Germishuys: have you done anything like this cool. So, we'll just accept the file. And now we have queries. how do airplanes fly? What if humans could photosynthesize process You're a helpful assistant that determines whether a user's query needs a simple explanation for question seeking understanding of concepts. what if analysis for hypothetical scenarios and their implications. Choose the most appropriate function. Okay, that's not exactly how I want it to be. So this is the orchestrator function. It's basically saying I have a query now I have to decide which tool to use.

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Justin Germishuys: So, I can say let's add four more functions a devil's advocate. We're going to extend this to be much more than a plan it out.

Justin Germishuys: A suggestion. And what was the other one? That's already what if. It's there.

Kiyasha Singh: …

Kiyasha Singh: then that's all of the ones that we have. The last habit was what?

Justin Germishuys: We have six.

Kiyasha Singh: Yeah, we don't have seven.

Justin Germishuys: Yeah, I know. But I've only put in two and these are three here.

Kiyasha Singh: What if I need I'll tell you now.

Justin Germishuys: So, I've got explain it I'm five, devil's advocate, plan it out, planet suggested, what if, and okay,…

Kiyasha Singh: Imagine suggest plan critique. Where's the other one?

Justin Germishuys: let's just do these anyway,…

Justin Germishuys: so let's not get too stuck on it. All use m need lm functions that do this.

Kiyasha Singh: How am I getting?

Justin Germishuys: The orchestration core needs to be able to handle vague inputs.

Kiyasha Singh: Made I

Justin Germishuys: Also, it needs to plan and execute. It needs to pick a tool, run it, evaluate whether another tool is needed and then we'll run that to…

Kiyasha Singh: Sorry, I have the last habit.

Justin Germishuys: what is

Kiyasha Singh: Guide it.

Justin Germishuys: …

Justin Germishuys: I'm going to leave guided out because I think you're right. but a guided is only guided for a human being for now. So, let's just Okay, so I basically said let's add three more functions. A devil's advocate, a planet out, a suggestion. All need functions to do this. the orchestration call needs to be able to handle vague inputs. So this is really the power of cursor is that quite possibly in about 10 20 minutes we can get our first agentic system running without using any kind of additional frameworks hopefully. So we'll see in a minute.

Justin Germishuys: So, while we're waiting for that to do its thing. Maybe we don't have to wait that long. So, let's accept that. Let's see. What did it do? There we Create structured plans for achieving goals. That's Provides practical recommendations. Evaluate need for additional tools. implemented a loop with max four added context passing between iterations. it's taken care of all the stuff you would normally need to do does it remember what it did last time in order to pass it in next time. added more diverse examples to demonstrate the multi-tool capabilities. How do airplanes Likely that plus suggestions. Okay, cool. So, it's getting there.

Justin Germishuys: Let's see what happens. for query and queries, let's actually just take these out for now so that we don't overload it with too many different things. So now, if I can't remember how to run this file, I can just say run cyborg. Obviously, normally I often forget that it should be Python, not what did I do? Get in. All right. So, …

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Justin Germishuys: no, go away.

Justin Germishuys: So something's missing. I need to import end to make in fact, let me I'm doing a bit of a demonstration in a very sloppy way at the same time. So, please just excuse Are you getting any of this or am I just going into Yeah.

Kiyasha Singh: I feel like there's some things that I have dealt with in terms of the virtual environment.

Kiyasha Singh: Still struggle with that on my laptop cuz installing Python was giving me issues. But for the most part, I'm understanding here and there. I feel like when I actually do it on my own, then I'll actually see

Justin Germishuys: So, I think that what you need to do is we need to get you a cursor subscription and…

Kiyasha Singh: Okay.

Justin Germishuys: then you just have to install cursor and then cursor will just deal with everything for you.

Justin Germishuys: So, if something's not installed, something isn't installed. And so, it's given me this error key. And now I'm just going to stick this in there and put a question mark I don't know what that is. And so, essentially what it's going to do is it's just going to debug it and then fix it. So you can see there it It's got everything there. It's giving me some stuff to install. So I need to install python.in. So it's just telling you everything you need to do. That's why cursor is so amazing. So even if you didn't know how to get all of the stuff set up on your laptop, it'll help you. So we're just going to do that. we've already got that.

Justin Germishuys: and so we basically want to just accept that. And then what we can do is we can just run it again. So it's just given me the thing to run there. How do airplanes fly? And now hopefully is it going to load? I'm going to push enter.

Justin Germishuys: Okay, there we go. So, it basically realized it needs to use expanded I'm five and it's just gone ahead. all right. So, it's what I wanted to do is I want you to print out the thinking process and indicate in different colors in the terminal.

Justin Germishuys: What is a thinking step that selects a function and…

Kiyasha Singh: Okay.

Justin Germishuys: what is the function Just give me one moment. Okay.

Justin Germishuys: All right. I'm back. So, I want you to print out the thinking process and indicate in different colors in the terminal what is a thinking step and what's that selects a function and what is a function So, it's probably going to install some other stuff that takes care of different colors in the terminal. then what I wanted to do is remember to include in the reasoning whether or…

Kiyasha Singh: Okay.

Justin Germishuys: not more functions would be useful.

Justin Germishuys: Also you can do max four iterations. So basically what that means is you can reason but don't reason for more than four rounds. Have a problem that comes in then what should I do and then do something. Then get that input and say should I do anything else? or do something else. If no, stop and so I'm being very sloppy just to illustrate how sloppy you can be. as we do more of this, we'll end up being much more specific about…

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Kiyasha Singh: No. Got it.

Justin Germishuys: how we want this thing to work. And then what we'll end up doing is Can you hear that noise? Okay, then that's fine.

Justin Germishuys: So, it's still reasoning. I've enhanced the code. So, it's come up with other things. So, I'll accept all of this and then I'll run cyborg. py again. How do airplanes Selecting most appropriate tool. Thinking none. selected expanded I'm five analyzing it more tools. okay let's just quickly see select that.

Justin Germishuys: So it's doing that K analyzing if more the current response provide a simplified blah blah blah for more comprehensive especially for an audience seeking a deeper technical insight another perspective that includes these elements decision physics explained no additional tools needed wait what's happening at the end of this thing here So, it's basically just running through reasoning. So, it says here it's selecting devil's advocate. you presented a wellrun rounded examination of the potential pitfalls of a 4-day work week. So, let's just quickly go here. analyzing if more tools will be beneficial after using devil's advocate.

Justin Germishuys: The current response provides a comprehensive overview of the potential benefits and challenges. the use of devil's advocate was effectively highlighted potential drawbacks and considerations. So okay, This is our agentic system. very very basic and one would actually have to read through it in a lot more detail. But if somebody goes in and says, "How do airplanes fly?" explain it like I'm five. If it says, should we implement a 4-day work week? It's going to go with devil's advocate, namely, I want to learn programming, it's going to say, okay, how do I guide you through it? Or What if humans could teleport? And then it picks what if question. So, not perfect, but from here we can keep iterating on this until we have a really, really awesome agentic system.

Justin Germishuys: And how long did that take us? probably about 10 minutes. Okay. I'm actually going to go back and say look that this noise is not actually super cool. Or maybe I'm going to go somewhere else. Hold on. I realize that the four-year-old is actually not in the house at the moment, so I can be somewhere else. just give me a second. My cat now thinks it's supper time.

Kiyasha Singh: No.

Justin Germishuys: Okay, cool. That's a little bit better.

Justin Germishuys: All So, h am I still sharing a screen at all?

Kiyasha Singh: No, you're not. Okay.

Justin Germishuys: Can you just give me a second?

Justin Germishuys: What time is our demo day thing?

Kiyasha Singh: It's at half 3 until 4.

Justin Germishuys: So, all Let me quickly want to share my screen again. So, we'll probably end up working on this together during the course of this week.

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Justin Germishuys: But we need to get you a cursor subscription.

Kiyasha Singh: I actually have a meeting with Barbara on Wednesday about subscriptions,…

Justin Germishuys: Yeah.

Kiyasha Singh: but that's on Wednesday. So, maybe I'll ask you to Okay.

Justin Germishuys: Look, I mean, this can wait until Wednesday because I still need you to make the other video.

Kiyasha Singh: Yes.

Justin Germishuys: So, it's not super urgent, but this was just me using the hour that I have with you to get into this. so in demo day we can say look we don't have anything to demo but we can report back that we just spent one hour starting to think about how to make agents and how to make agents using cursor and if I wanted to I can always just demo this that we're doing right here to say okay look we started putting together this kind of thing what I want to do is I just kind of want to

Justin Germishuys: take these commented out for a second. Then I want to say so I need more robust reasoning and planning about next steps or next functions I need the reasoning to anticipate what other function would be useful for the user as a next step.

Justin Germishuys: so there are two ways we can do this. We can either have a user ask something or write a query and then have it plan out what steps which of these habits do you think you should use in which So we can frontload all the planning or we can say pick the given this response what would be the next best function which means that we keep distributing the decision making throughout the process or we could have both. So there are lots of different kinds of agent architectures.

Justin Germishuys: One is you might have the agent plan everything out at the beginning and then everything else just does it or something makes an observation says what do I need to do next and then does that next we can also create a system…

Kiyasha Singh: Okay.

Justin Germishuys: where at certain points if it's not clear it'll pause and ask us a question and say okay would you like me to do something else or which of these would you like me to do in which case we're create including more human in the loop. So we need to think through the design of this. Obviously our goal is to help a human being think better without having to think which habits to use if that makes sense. And so it recommends the habit and then the human being can choose to use that habit or to use a different habit.

Justin Germishuys: So I mean every step of the way we can have it make a recommendation but then let us choose something else. And so the idea is that there are two ways to develop the one we can give somebody the cyborg habit course to do and each day they have to either stick a post-it note on their screen to remind them to explain it like I'm five. And what that does is it starts to get them into the habit of thinking to use it themselves.

Justin Germishuys: What something like this would do is we would only need to create one habit and say use our habit app and you put in something and it will start recommending…

Kiyasha Singh: so they can be sold separately basically as two different Okay.

Justin Germishuys: which of these habits to use and then you use this every day for 3 weeks and before you know you will have passively gotten used to using these habits. Do you see or together to say do the course and you also get this thing.

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Justin Germishuys: So obviously as we think through this we might discover how we might want to change the habit program delivery considering that the tool exists.

Kiyasha Singh: Yeah.

Justin Germishuys: So it's how you form habits. Let's say for example you watch Netflix, And if you don't know what to watch next, Netflix will recommend something for you. But let's say you watched a crime hriller. And next up, it recommends a comedy that is also sort of half overlapping with a crime hriller. And you wouldn't have thought to look for that, but then you suddenly discover, this is a nice thing to watch.

Justin Germishuys: And so to a large extent, Netflix starts to guide your tastes one way or another. In a not too different way, we build something that through its recommendations and it's one-click execution, we can get people used to the idea that they should ask what if questions or guide me through it questions or so how we design it. So basically as a byproduct of using it, people will learn the habits but also benefit from it immediately without having formed the habits. They only need one habit which is use this one new thing. but longer term what we're trying to do is get to a sparring partner for Astroenica as I said to you before. Okay. So I need more robust reasoning and planning about next functions to use.

Justin Germishuys: I need the reasoning to anticipate what other function would be useful for the user as a next step. I need all this reasoning to be neatly formatted as it is printed to the terminal. Okay, let's just So, basically, I'm just letting Claude write my prompts for me as well. So, if you notice what Claude is doing, let's just go through the code bit by bit. Here are functions for printing outputs in different colors. So, as you can see, it's got different colors for different kinds of parts of the agent output.

Justin Germishuys: So, the agent is doing two things.

Justin Germishuys: it is deciding which of these other functions to use and then it's running those functions and so it's thinking to the terminal but then it's also printing the results so it says the person is asking how does an airplane fly I think of the five habits that I see explain it I'm five is the best habit to use here let me use that.

Kiyasha Singh: Man.

Justin Germishuys: So then it uses it and then it gets the answer to that and then prints it and it says, " okay. This is a nice answer, but what could benefit this user maybe a devil's advocate." And then it says, "Okay, devil's advocate." And then it runs devil's advocate without asking. And then it just naturally does all of that by thinking it through.

Kiyasha Singh: Okay.

Justin Germishuys: so it's enhanced the initial tool selection evaluates user intent explicitly considers each tool's potential value blah blah blah. Okay, cool. Let's just run this and see what we end up with. obviously we don't want to run all of this. We'll just comment out those other questions. let's clear this terminal so that we can see a nice new Python cyborg. How do airplanes fly? analyzing query and tool. it's not printing out. no.

Justin Germishuys: Sorry, sorry, it did not. Sorry. Let's just say did you update cyborg py okay sorry I'm just getting some messages coming in

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Justin Germishuys: All right. multi-tool reasoning. please just make sure that the full reasoning, which must be at least a paragraph long, is also printed to the terminal.

Justin Germishuys: Okay, sorry. Let's just clear this again. Okay, so after this is done, I'll run it again and then hopefully we'll have at the very least this little thing to demo when we meet. I wouldn't mind if you played around with this yourself because I just want to show you something else. let me just quickly bring it up here and then I'll chat. So, basically what I want to do is I want to create this but

Justin Germishuys: I did a conceptual analysis of devil's advocate where I broke it down into a bunch of devil's advocate tactics. So, I just want to show you this quickly. Wait, let's just accept this and run terminal do Python. Wait, hold on. Ctrl C. It keeps putting it didn't. Okay. Let's have a look. Thinking none.

Justin Germishuys: Why is it giving me that? Why? Okay, let's see what it did. Okay, so let's open this up.

Justin Germishuys: So all right imagine okay so it didn't actually provide the thinking it says analyzing response and planning next steps reasoning the current response provides a simplified explanation the core question of how airplanes fly has been addressed in a simplified manner gaps lack of scientific depth recommendation explain it on five what if an final decision Devil's advocate. This tool would be valuable to address and clarify common misconceptions. decision no additional tools needed. And then it gave the final combined response which is not what I wanted. Okay. So this is terrible. Okay.

Justin Germishuys: so I'm just going to plug this in and I'm going to say this isn't what I asked for. As you can see, the initial thinking is thin and it never executed a follow up function call.

Justin Germishuys: And it could do up to four more.

Justin Germishuys: Cool. …

Kiyasha Singh: Sorry for the noise.

Kiyasha Singh: I'm just getting my charger.

Justin Germishuys: there's no noise. Okay. No,…

00:40:00

Kiyasha Singh: Is it really noisy?

Justin Germishuys: not at all. So, basically I just said this output isn't at all what I was looking for. It's not doing the right thing.

Justin Germishuys: So now it's fixing itself. So now let's try it Clear. and it's opened. Let's just do that and get rid of this. So basically it is doing the 4 day work week one. Okay, run that. No. So reasoning is always required. So in agent systems there's something called a react framework.

Justin Germishuys: It's reason act. So every time you give it an input, it says what should I do? It thinks about it and it says of all the things I can do, I will choose this thing. And that's how agents work in a nutshell.

Justin Germishuys: So if exactly.

Kiyasha Singh: So it makes its own decision based on…

Kiyasha Singh: what the best outcome is. Okay.

Justin Germishuys: So So enhanced system prompt added explicit requirement for detailed reasoning made the format requirements more strict verification added check for reasoning increased temperature to encourage more detailed and creative reasoning. This helps avoid tur I don't really want any of that. So obviously when we do this we will be more intentional about it. But let me show you what's happening here in the code. It's created this function and we need to go and edit that.

Justin Germishuys: what if function. Each of these are different LLM calls saying you are an imaginative analyst who explores hypothetical scenarios, consider multiple angles, potential consequences, and interesting possibilities while staying grounded in logic. Obviously, we don't want that necessarily. Devil's advocate. And each one has a system prompt and is putting in extra information like that.

Justin Germishuys: And here it's saying these are the tools available. So all those functions are tools. Asking what if questions, devil's advocate, explain it like a five, they're all tools. Over here it's saying this is my toolbox. It has a description for the thing in the toolbox so that an LLM knows what's in its toolbox. And then it's created helper functions. And here's the process. Cool. So, we can read through this in more detail. So, we want to clear that. Okay. And let's see what happens now. Okay.

Justin Germishuys: So, coming back to the video, let's talk about that for five more minutes and then we'll come back to this. For the introductory video, we need to say something along the lines of welcome to the cyborg habits course. It needs to be called welcome to the cyborg's habits course. we need to at this point give them a little bit of background. What makes this course different from your standard course is that we focus more on habits. We're not going to ask you to do anything that you can't already do.

Justin Germishuys: It's really about building the behaviors that will help you get the most value from AI particularly when it comes to decision- making. Obviously, don't take what I'm saying verbatim. It needs to be in the same tone as everything else. So the way that the course is structured is we will take you

through seven habits that we believe or not that we believe but that will help you to become a more effective cyborg. We may also want to say that a cyborg isn't a scary thing like you might see in science fiction where you have implants.

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Justin Germishuys: What we mean by a cyborg is somebody who can effectively interact with AI in such a way to to increase their own potential or capabilities. That's what a cyborg is. we might want to add the Iron Man anecdote in there if we want to. It depends on how long we want to make this introductory video, but for now, let's leave it out. And then we can say okay so during this course we're going to explain it suggest it what if critique it habits.

Justin Germishuys: And each one is going to be a simple set of easy to do activities that you can finish in a few minutes every day. But over the course of 3 to four weeks, we can just pick three or four weeks here. at the end of this, you will have internalized the habits to such an extent that it will improve your ability by x amount. just so that we explain to them a little bit about what this course is and what to expect. And so we can say look while you would benefit from doing these habits more your commitment is simply at minimum 5 minutes a day to get some benefit from this course.

Justin Germishuys: And that's basically what we want to say.

Justin Germishuys: So if you can generate sort of a starter script based on that that would be cool.

Kiyasha Singh: Okay. …

Kiyasha Singh: would you say that the introductory video can be about a minute and 20 seconds or a minute as well? Okay.

Justin Germishuys: It could be 2 minutes or even 3 minutes because it's the introductory video. But it's fine. Shorter is not worse. it needs to be long enough to let somebody know what they're getting themselves into. So you may want to say look the way that this is set up is that every day you'll get a short activity to do and after that the next day you'll have an opportunity to reflect on it and get another activity to do and if you follow through at the end of this you will have significantly improved your cyborg habits. so let's just quickly see if this thing works.

Kiyasha Singh: Okay.

Justin Germishuys: Why isn't it reasoning there is supposed I think it's getting a bit confused.

Justin Germishuys: supposed to be a step where it takes all the context reasons about it with an LLM and…

Kiyasha Singh: Hello.

Justin Germishuys: calls one of the functions as you saw in the docs.

Justin Germishuys: Somewhere along the line it's decided Okay, there we go. Usually when I'm doing this not as a demonstration but just kind of on my own I don't generally make these mistakes but if you use this frequently over the course of a few weeks all of the stuff becomes okay. Let's just quickly see except clear run. No.

Kiyasha Singh: So I will discuss it with Barbara on Wednesday and then as soon as I have it I'm also going to try and do little projects or something relating to this stuff so I can also understand Okay.

Justin Germishuys: Yeah, but I think that if you just understand basically what an agent does, you're already well ahead. And there are lots of different ways to implement agents. So I'm going to share some stuff with you to show you that, agents can either interact with one another in a kind of a roundroin. So each one takes a turn to do something or there's a kind of a supervisor that says okay here's a task here are sub aents who do I delegate it to those sorts of things. but let's just kind of go into this quickly and…

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Kiyasha Singh: Yes.

Justin Germishuys: see what we've got some time. So can you see this clearly? Okay.

Justin Germishuys: So it says, should we implement a 4-day work week? So now what it's doing is to determine whether we do this as a good idea. It's important to explore the potential implications. So thus what if analyze is the most suitable tool for exploring the potential impact. So it's choosing that tool. Then it says, selected what if analyze. And so here it's actually running the boom. Cool.

Justin Germishuys: That's what if Then we have analyzing response and planning next step reasoning. The current response provides a comprehensive overview blah blah blah tool recommendations. Final decision plan Implementing a 4 day work week requires careful planning. This tool will help create a detailed action plan. so it didn't do So, this is what happened. It decided to use another tool after the first round, but then didn't do it. Okay.

Kiyasha Singh: That makes sense.

Justin Germishuys: …

Justin Germishuys: I see the issue. The problem is so this is actually also an agent that you're seeing. So that's what cursor is. It takes in and it's saying what should I do now? I should write some code for this or I should quickly go and look at your code and see what the issue is or I need to quickly do a vector search to see what files you have. So each time it plans out and it calls a different function and that is how it's working. So let's see clear do okay let's try it one more time.

Kiyasha Singh: Nothing.

Justin Germishuys: So, as you can imagine, one actually burns through a lot of LLM tokens this way, but So, it's all this yellow is thinking. It's using what if tool. Okay. Produced the response the last time.

Justin Germishuys: Hopefully, it'll work now. I don't know why it's doing it in purple the second time. Let's have a look. The one thing about agents is that they're very slow. They're not.

Kiyasha Singh: At least they're not as slow as humans though.

Kiyasha Singh: As slow as humans,

Justin Germishuys: No. okay.

Justin Germishuys: So yeah, you said you did it again. is there thinking in the first round but evaluation? So normally what we would do is actually plan this out a little bit better instead of doing it in a sort of the second round. I need it to choose a tool like it does in thinking. Just make one thing hopefully that it will understand. Okay, cool.

Justin Germishuys: that should hopefully fix it. If I can just get two rounds of reasoning, we actually have a good demo to present in demo day in 10 minutes. So that's kind of why I'm doing this. Okay, that's cool. That's clear. it's even specifying iteration one. Okay, it's thinking.

00:55:00

Justin Germishuys: So what I find very interesting is that there are a lot of frameworks and things coming out like autogen crew AI lang graph you name it that you have to learn…

Justin Germishuys: if you want to use it. But you can just go into cursor and put in function calling docs and say I want an agentic system that does this and it basically just builds it without you having to worry about any I just read the news.

Kiyasha Singh: How did you discover curs?

Kiyasha Singh: You were the one that introduced you to our whole group.

Justin Germishuys: So when everybody started getting excited about it I decided to okay so okay plan it out.

Justin Germishuys: And so now it's running the plan it out function thinking we'll continue with devil's advocate in the next iteration. And so now it's doing a devil's advocate on the plan. So thinking given the context blah blah blah therefore leveraging make a suggestion would complement selected make a suggestion.

Kiyasha Singh: It's going to take too long.

Justin Germishuys: So, okay, It's cool. It's doing that. So, I'm actually just going to show them this output. I'm not going to run it. U Yeah.

Justin Germishuys: But basically this is a fully functional agentic system now using cyborg skills or cyborg habits. And here we go. This is the final result So it says final combined response. So this is everything that it produced with what then it's probably going over to plan it out over there and then it's make a suggestion and now it's making a suggestion. So obviously from here we can tweak it but this is what I wanted to show you.

Justin Germishuys: okay. I'm probably going to drop off in a minute or two. Where did I put it? man, It's not there. Chat. Okay.

Justin Germishuys: Ed head tactics. Okay, that's the one. So basically what I did is I used chatgpt01 to say okay what are the different tactics used in devil's advocate. So right now we're using devil's advocate in a very one-sizefits-all kind of way, but actually devil's advocate should be an agent. So right now what we have is devil's advocate is a tool that the orchestrator calls. But what should happen is devil's advocate

should be an agent and that agent says okay I can use Socratic questioning. I can use inversion. I can use leading or loaded questions.

Justin Germishuys: I could use recontextualization. I can use role reversal. These are all the tools that the devil's advocate has at its disposal.

Justin Germishuys: And so it can then go into a devil's advocate agent who that will do all of these things in a more sophisticated Exactly.

Kiyasha Singh: It's already so good at…

Kiyasha Singh: what it does. imagining it as an agent with all of these I Yeah.

Justin Germishuys: So, I mean, even for you, if you were to take this and practice all of these tactics for yourself, you'd become a much much better thinker. So, remember Allison and I talk about being able to walk into a room, even if you don't know what the topic is, and nonetheless help everybody else think better.

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Justin Germishuys: It's because we do these things mirror or reflective listening. yes, even yes and we use these tactics that we've learned over many many years but in a fluent way. So we don't use the wrong thing at the wrong time. We can say okay from all the different things we can do to help you think better what do we think is the right thing? Should we suggest that you go back to first principles? should we stop and say, "What are your assumptions?" Should we say, "Yes, but if we take that to its logical conclusion, it's pretty absurd, isn't it?" So, we do all of that.

Justin Germishuys: But what we're trying to do is kind of see if we can get a devil's advocate to do all of that using AI and then give it to a CEO and they can benefit from having a world-class devil's advocate.

Justin Germishuys: at their disposal and okay what is your email again? Okay, let me just create a link and then I'll share it here quickly.

Kiyasha Singh: Can I ask for you to share a link with this just so I can read through it please?

Kiyasha Singh: Yeah. Good.

Justin Germishuys: Cuz this is the agent that we want to build for Astroenica. So while what I showed you now is nice general purpose for Cybold skills, we want to create this particular one that uses all of these tactics as tools. So what we want to do is turn each one of these tactics into a function and then have an orchestrator that we call a devil's advocate that calls each of those.

Kiyasha Singh: Yeah, that's amazing. Okay.

Justin Germishuys: See how much we can do in an hour. Cool.

Kiyasha Singh: So before you drop off, sorry, just a quick question. So I'm going to go into the demo by explaining that we are on track with the time thingy as well as we have started with the agentic system and…

Kiyasha Singh: Justin is going to show you a bit of what we have. Is that okay?

Justin Germishuys: Yeah. Yeah,…

Justin Germishuys: you can do that. and we're just working on the introductory video for the course. Then towards the beginning of next week, we'll probably look at how to deploy the course. We'll probably use cursor to build something because what I need to do is I need to sit down with Barbara or Allison and just get mail gun running. but okay, cool. I'll see you shortly.

Kiyasha Singh: Okay. Bye. Thank you.

Justin Germishuys: Sure. Bye.

Meeting ended after 01:03:08 👋

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