

Audio file

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Transcript

00:00:03 Kirill

I think I'm not already joined.

00:00:06 Kirill

So sorry, I'm not joined already.

00:00:09 Kirill

So I'm good.

00:00:25 Kirill

Okay.

00:00:30 Abhinav

Hi.

00:00:31 Kirill

Hey, hi.

00:00:37 Kirill

I think we'll wait a bit for.

00:00:39 Kirill

Yeah, Kazi, you're joining and for Ashish?

00:00:45 Abhinav

Yeah, I think is there a problem with my microphone or is it?

00:00:51 Kirill

No, I hear you fine.

00:00:53 Abhinav

Oh, I was hearing some, some weird noise, but that's fine.

00:01:00 Abhinav

Hi, Kazi.

00:01:02 Abhinav

Just give us two minutes Ashish might be joining.

00:01:05 Kazi

Yep, hi.

00:02:10 Kirill

Yeah.

00:02:10 Kirill

Hi.

00:02:12 Kazi

Hi, Dr.

00:02:12 Kazi

Ashes.

00:02:13 Kazi

Hello.

00:02:15 Kirill

So in that case, everyone has arrived.

00:02:18 Kirill

I'll start sharing my screen.

00:02:25 Kirill

So essentially, just this is like the final proposal about this project, how at least I envision it to how like this phase.

00:02:35 Kirill

could serve as a base for future work, right?

00:02:39 Kirill

So if we work for integrating probabilistic wear forecasting into build or routing.

00:02:45 Kirill

So what's her problem, right?

00:02:47 Kirill

So from what we spoke last time, essentially, driving in has those wear conditions, right?

00:02:56 Kirill

Good impact on traffic and I could say the argument that it could impact also on safety, right, of safety of drivers of

00:03:05 Kirill

like the system of the high of highways of transcription, right?

00:03:09 Kirill

So being able to identify stores, winds, other extreme weather patterns can reduce all of these disruptions and safety and like in brook safety and reduce traffic, right?

00:03:23 Kirill

So that's the general thesis of this problem, right?

00:03:28 Kazi

Yeah.

00:03:29 Kirill

So current methods that I've researched, at least should just have a little bit of idea what's on the table.

00:03:35 Kirill

So on their airplane industry, it's based only, it relies a lot on operators.

00:03:42 Kirill

So be the pilot, the copilot, or for example, the air traffic controller.

00:03:46 Kirill

So they have the authority to decide that.

00:03:48 Kirill

And they do have a bunch of information for that, but it's up to them, right?

00:03:53 Kirill

It's not like an automated system.

00:03:55 Kirill

There are existing apps which show forecasts for every hour, like in the future, but they only show, for example, rain, rain and temperature, right?

00:04:04 Kirill

So the user cannot assess what's the risk, what could be possible the traffic because of that, right?

00:04:12 Kirill

And for example, you show those last time, IRSAQ, your system, which does provide the total information, yet it only does so at the time when you

00:04:25 Kirill

enter the origin and the Dustin, right?

00:04:28 Kirill

So it doesn't do it over time.

00:04:33 Kirill

Right?

00:04:33 Kirill

So essentially for this project, at least for this phase, I'll explain this in a bit, I'm going to, the objective is to develop the algorithm, essentially, right?

00:04:42 Kirill

So it could be implemented.

00:04:44 Kirill

And as a secondary goal, it's to implement it into a map or do a visualization, at least in like Python.

00:04:52 Kazi

So first, I forgot, we should ask Gladis to join the call.

00:05:00 Kazi

Yeah, no, the Gladis, the software engineer to join the call.

00:05:04 Kirill

Ah, okay.

00:05:05 Kazi

We'll send the link to her.

00:05:08 Kazi

Oh, okay.

00:05:10 Kazi

So that she can at least listen?

00:05:12 Kirill

And I send the link.

00:05:14 Kazi

Okay.

00:05:15 Kirill

Well, also, could you give me her email, for example, so for future meetings, I could also show you her?

00:05:21 Kirill

Yeah, please.

00:05:26 Kazi

You met her right last time when you visited us.

00:05:29 Kirill

Yeah, I met everyone in your office.

00:05:33 Kazi

Yeah, thank you.

00:05:47 Kazi

You joining?

00:05:48 Kazi

Yeah, just.

00:05:58 Kirill

Yeah, especially since you told me that it was like her first day.

00:06:02 Kirill

I didn't have her contact, right?

00:06:05 Kazi

Okay, yeah, go ahead, please.

00:06:15 Kirill

Yeah, so just to recap a bit.

00:06:18 Kirill

So essentially on this part, the primary objective of this is just to do all the algorithm, right?

00:06:25 Kirill

So

00:06:26 Kirill

Prove that it's working, prove that it is reacting to like weather events, right?

00:06:33 Kirill

And a secondary goal would be to create a visualization.

00:06:38 Kirill

Be it, for example, right now, as I'm doing it just on my machine on Python or be it to integrate into your systems either to Mapbox, for example, or into Google Maps, as you told me last time, right?

00:06:50 Kirill

So there is questions, I more or less talked about this more at the beginning.

00:06:55 Kirill

So

00:06:56 Kirill

the two primary questions that I think could be for this project.

00:07:03 Kirill

These questions are a bit above just this framework, just this base is to assess to what extent does weather, this weather information affect on traffic.

00:07:17 Kirill

And in this case, how it could prevent traffic.

00:07:20 Kirill

And the second one, as I told you, is on safety.

00:07:24 Kirill

Right?

00:07:25 Kirill

So how does this affect, how could this, for example, make it so there are less crashes, right, on the highway each year?

00:07:34 Kirill

Right?

00:07:35 Kirill

Yeah.

00:07:37 Kirill

So what sort of the scope for this project since I have a like very tight time frame?

00:07:43 Kirill

So an implementation with your current systems.

00:07:46 Kirill

So I'll try to leave it as, I'll try to finish this as soon as possible so I can start working on, for example,

00:07:53 Kirill

leaving just a couple of functions for you to be able to call a deployment into Mapbox or Gmail, right?

00:08:05 Kirill

But I'll like just try to finish the other as best to my ability as possible, right?

00:08:10 Kirill

And I'll be not assessing neither traffic nor rubber safety because those would need to

00:08:15 Kirill

Those are like continuations of this base product, right?

00:08:18 Kirill

So and I'll not have time to assess nor like gather data, nor like do any of the proper things to draw any conclusions of that, right?

00:08:27 Kirill

So if we intend for this to be something that users do actually use instead of just being like a research tool in a website,

00:08:39 Kirill

I tried to identify what are the most likely users of this, right?

00:08:43 Kirill

So we're able to customize the system for their like better use, right?

00:08:50 Kirill

So first of all, our computers, of course, people who are coming, for example, from a side of Chicago into downtown for work, right?

00:08:59 Kirill

They're objective usual to away traffic, right?

00:09:01 Kirill

To be traffic to get job, logistic professionals, so say intercity or we're interstate traveling.

00:09:07 Kirill

Right?

00:09:07 Kirill

So delivering of goods, for example, last mile delivery.

00:09:16 Kirill

So say your last mile DHL, UPS, FedEx drivers, right?

00:09:23 Kirill

And emergency responders, because we don't know if there's a specific patch, for example, over the city of rain, which is causing a lot of traffic.

00:09:33 Kirill

So we can tell emerged responders to avoid that and maybe they'll get sooner to their destination rather than if they tried to fight against trust, right?

00:09:43 Kirill

So this is like phase one of the projects I've visioned this being a three or four phase project.

00:09:51 Kirill

The first one being only developing this algorithm, the system.

00:09:55 Kirill

The second one would be some programs, some project to

00:10:00 Kirill

find a correlation between weather and traffic, for example, also like in real time style a GPS style.

00:10:09 Kirill

Something to like combine it all into a program that is usable like in RSIQ or there's like in Google Maps, right?

00:10:16 Kirill

Like something user friendly.

00:10:18 Kirill

Unforth, this face about safety that I told you, maybe, well, for that would perhaps have

00:10:27 Kirill

a control group that uses this app and we compare like crashes in like two groups, right?

00:10:35 Kirill

So that's like very feature work.

00:10:37 Kirill

And for this project, this project is also broken into four phases, right?

00:10:41 Kirill

So phase zero, sort of say, was just getting to know the problem that you told us last two weeks ago.

00:10:49 Kirill

Phase one is

00:10:50 Kirill

Just sifting through the data set, did you sent us?

00:10:54 Kirill

Well, then you copy to our USB about last week.

00:11:01 Kirill

And for example, just to implement an algorithm to try to give it two points, what's the fastest route between two points?

00:11:08 Kirill

Because once we have those two bases, we can operate over them to either overlap them or influence how we find the route between the two points.

00:11:19 Kirill

And so for example, that's what I'm doing right now, right?

00:11:22 Kirill

So I'm in phase two.

00:11:24 Kirill

So I'm using, I'm incorporating weather traffic, weather data to influence how we are finding the place between these two points, right?

00:11:36 Kirill

Phase three and phase four will be evaluating, like using like with multiple thresholds and multiple timestamps.

00:11:47 Kirill

which I am now starting the research on.

00:11:51 Kirill

And for a fourth phase, which I'm not sure will be completely needed, is to train a basic model to just fill in the gaps between readings.

00:12:00 Kirill

So for example, you told me last time that your readings were an hour apart between each data point, but I found that for each 12-hour period, I have three eight readings.

00:12:10 Kirill

So that comes out to about 50.

00:12:13 Kazi

Minutes.

00:12:13 Kazi

Say that last sentence again, please.

00:12:16 Kirill

So when I went with you, you told me that the reading between each reading was one hour apart from each other, right?

00:12:24 Kirill

So given that your data is stored in 12-hour parts, I should have 12 readings, right?

00:12:35 Kirill

But I have 48 for each 12 hours.

00:12:37 Kirill

So that means that I have a resolution, sort of say, of 15 minutes.

00:12:44 Kirill

And that was, for example, what I was aiming for.

00:12:47 Kazi

So maybe which dates did Winston give you?

00:12:53 Kirill

I think he gave me old data from three months ago up until the day I went.

00:13:00 Kazi

Okay, maybe it's because the thing is we can output at whatever frequency we want.

00:13:06 Kazi

And maybe you can look at the header of the NetCDF file to see what is the frequency of the data set.

00:13:14 Kirill

I'll probably also ask Winston, but for example, here, like this animation.

00:13:20 Kirill

Yeah.

00:13:21 Kirill

Or if.

00:13:25 Kazi

We can show the data, then we can tell you what the frequency is.

00:13:29 Kirill

Well, for example, yeah.

00:13:30 Kazi

Yeah.

00:13:31 Kazi

So this is, for example, 48.

00:13:33 Kazi

So every time we forecast, we forecast for 48 hours, means two days.

00:13:39 Kirill

No, but this is, for example, this one is just

00:13:43 Kirill

So you know how the data is like structure, right?

00:13:45 Kirill

So it's like they fold the folder for like the day, then eventually you have like t zero zero z, which means that the reading starts at zero zero and like for midday.

00:13:54 Kirill

So this is, I think, like the third or fourth day that I have, right, available.

00:14:02 Kirill

I cannot, I don't remember which date it's exactly.

00:14:05 Kirill

And it's only the reading for the first two hours of the day.

00:14:08 Kazi

If you show the data, then we can tell you is it 15 minutes interval or is it hourly.

00:14:13 Kirill

Okay, well, now I can show you very quickly, but for example, this is what I've been working on is like phase two stash phase three.

00:14:23 Kirill

This is just giving a data points, right?

00:14:25 Kirill

This the blue line is just the fastest route and the red line is one which has a lot of penalty if it drives to rain, right?

00:14:35 Kirill

So it tries to avoid it as much as possible.

00:14:38 Kazi

So where are we going from point A to point A?

00:14:40 Kazi

What is point A and point B?

00:14:42 Kirill

So point A is a hotel near O'Hare?

00:14:45 Kazi

And point B to downtown.

00:14:48 Kirill

And point B is the Griffin Museum.

00:14:51 Kazi

Okay, so the purple and the blue is the shortest distance.

00:14:57 Kirill

Yeah, so here it combines, right?

00:15:00 Kirill

But the blue is the fastest and the red is like

00:15:04 Kirill

You rein aware, right?

00:15:05 Kirill

So for example, right now, I'm just testing things with only rain, right?

00:15:08 Kirill

Only with precipitation, right?

00:15:11 Kirill

I still have to include the other parameters, right?

00:15:14 Kirill

And that's also what's something that I wanted to ask you.

00:15:16 Kirill

If you decided upon the thresholds that we talked last time, right?

00:15:25 Kirill

And if I should use every parameter that you gave me, right?

00:15:29 Kirill

So I have wind, humanity.

00:15:34 Kazi

You can try with precipitation as of now, because the temperature will not change that much, the temperature you can discard.

00:15:42 Kazi

But I think wind will only be important if it is gusty wind, right?

00:15:48 Kazi

Otherwise, you can't, otherwise if it is just high wind, people do not stop.

00:15:54 Kazi

It has to be a hazardous wind, and hazardous wind is when there is a square line or a derecho or something like this.

00:16:02 Kazi

So,

00:16:03 Kazi

So when a severe weather event happens, for example, when a straight line winds are there, they might come with a lot of rain as well.

00:16:13 Kirill

Okay.

00:16:14 Kazi

We are creating different metrics for those, and we are that would those variables would be way different.

00:16:21 Kazi

But just to create hyper the algorithms, you can just use rain.

00:16:26 Kirill

Oh, okay.

00:16:27 Kirill

Then I'll just focus on rain.

00:16:29 Kazi

Yeah.

00:16:29 Kazi

And my other suggestion is rain

00:16:33 Kazi

might be not that localized when you see.

00:16:36 Kazi

So if you are just focusing on Chicago, city of Chicago, you might not see such big data points.

00:16:43 Kazi

But if you are looking from, say, Champaign to Chicago, you might see, or maybe St.

00:16:48 Kazi

Lois to Chicago, or maybe on the west side, some city on the west side, to Chicago, you might see some data points.

00:16:58 Kirill

Yeah, of course.

00:16:59 Kirill

But this is, for example, just

00:17:01 Kirill

my proof of content, right?

00:17:02 Kirill

So this is what I was trying to do just to see if the algorithm is worth pursuing, right?

00:17:08 Kirill

Or should I get to another approach?

00:17:10 Kirill

So my word approach is, for example, this on the left side, on the right side, yeah, is something similar to what you have currently at Terrace IQ.

00:17:19 Kirill

So it's given some data point, right, given

00:17:22 Kirill

points, I can calculate what's the route to minimize rain, right?

00:17:27 Kirill

So what this I have on the left, it's my approach.

00:17:32 Kirill

So I'm breaking the trip into, well, for example, this into three different phases.

00:17:41 Kirill

So this area is the area that the driver can reach within 15 minutes, 30 minutes, 35, 30, 45 and an hour, right?

00:17:52 Kirill

So, and for sure of these areas, I load the next available reading, right?

00:17:58 Kirill

So, for example, this is like time 0, time 1, time 2, time 3, and time 4.

00:18:05 Kirill

And I'm overlaying the currently only the range information, right?

00:18:09 Kirill

Based on those on that information, like a couple of different like

00:18:16 Kirill

positions of where I'm cultivating the route.

00:18:19 Kirill

So, for example, here I have the same analysation for rain avoiding.

00:18:23 Kirill

And here it's sort of like barely avoiding.

00:18:27 Kirill

Well, here it's like.

00:18:29 Kazi

So, when you draw these routes and the colors on the routes, are those instantaneous right now or they are varying with time?

00:18:40 Kirill

These are like time varying.

00:18:42 Kirill

So, for example,

00:18:44 Kirill

I'm taking into account like imagine like this.

00:18:47 Kirill

So I'm getting out of this hotel at near Ocare, right?

00:18:53 Kirill

And for example, this 15 minutes part, it's the weather currently, right?

00:18:58 Kirill

Right now.

00:18:59 Kirill

So I know my next reading, right?

00:19:00 Kirill

It's in 15 minutes, and I have it, right?

00:19:04 Kirill

So every bit of area that I can reach after 15 minutes, but before 30 minutes,

00:19:11 Kirill

should be like its own area would see with its own weather written, right?

00:19:15 Kirill

So this is, for example, this area right here.

00:19:17 Kirill

And this one is the area between 30 minutes and 45 minutes, right?

00:19:21 Kirill

Okay.

00:19:22 Kazi

So the different areas have different, the color shows the variability in rain at that time.

00:19:32 Kirill

In particular, this map only shows what's the distance to reach, because I couldn't find a way that

00:19:42 Kirill

maps like visualizes good enough, like that that's what like what I wanted to do, right?

00:19:46 Kirill

So for example, on this time time zero, it's the same as in this map, right?

00:19:50 Kirill

So there's not more train, right?

00:19:52 Kirill

But this area that corresponds to more like more of this area, right?

00:19:59 Kirill

Here there is rain, right?

00:20:00 Kirill

But here, apparently there is not, because we're not starting to avoid rain as soon as possible, right?

00:20:07 Kirill

And on this area, right, there's also like, for example, here there is,

00:20:10 Kirill

a little bit of rainboard here, there isn't enough rain to avoid this patch of area, right?

00:20:17 Kirill

So that's for example why I asked Winston if he can send me yesterday's rain.

00:20:25 Kirill

Because I also could, I see it as a good example to use while I'm still playing within the bound region of the city, right?

00:20:31 Kirill

So obviously what I'm going to give you in the end, right?

00:20:35 Kirill

It's

00:20:36 Kirill

something that works statewide, right?

00:20:39 Kirill

And works with rain and, for example, wind, right?

00:20:43 Kirill

If you select.

00:20:44 Kirill

So I'm just like doing proofs of conspreading.

00:20:51 Kirill

Right?

00:20:51 Kirill

And for example, I do have the data for this.

00:20:53 Kirill

This is the 6th of July at approximately 30 in the morning, like these two rain data points, right?

00:21:06 Kirill

What are some things that I think would help me?

00:21:10 Kirill

So the algorithm currently, how the algorithm currently works is off the streets.

00:21:19 Kirill

So like I have a map and I can assign a wait.

00:21:24 Kirill

to every point between like to every road, right?

00:21:27 Kirill

So for example, we think as the weight normally has just length of the road, right?

00:21:32 Kirill

So we're trying to get either like in the faster route or in the shortage route.

00:21:37 Kirill

But here I can modify this weight to be, for example, the rain that the car is going to receive times the length, right?

00:21:44 Kirill

So that way I'm minimizing the rain exposure of the car.

00:21:48 Kirill

Okay.

00:21:49 Kirill

What I'm working now is a way of building this weight.

00:21:53 Kirill

with the different parameters.

00:21:55 Kirill

For that, I need to know which are the thresholds above when a car shooting go on that road, right?

00:22:03 Kirill

So the wind and the rain one.

00:22:06 Kirill

And for that, I have like a couple of proposals to train a model, like on my set to train.

00:22:16 Kazi

Reduce speeds based on how much is the rain.

00:22:20 Kirill

Sorry.

00:22:21 Kazi

Will you also be reducing the speed of the car based on the rain?

00:22:26 Kirill

I'm currently not.

00:22:29 Kirill

Okay.

00:22:29 Kirill

What I'm doing is just taking like base speed, right?

00:22:33 Kirill

The car is traveling in and multiplying it with a couple of other things to get time and to get like this weight, right?

00:22:43 Kirill

But this length.

00:22:45 Kazi

And how are you doing the base speed on a specific route?

00:22:51 Kirill

The data set that I have includes speed in miles per hour and kilometers per hour.

00:22:57 Kirill

Like max speeds for.

00:22:59 Kazi

Whatever is the road segmented, the road the segment defined speeds, right?

00:23:03 Kazi

Yeah.

00:23:04 Kazi

The way Google Maps uses it.

00:23:05 Kirill

Yeah, yeah, essentially.

00:23:09 Kazi

Okay.

00:23:10 Kazi

I think I've prepared, so these are all the slides that you have, right?

00:23:15 Kirill

Well, I have a like a small timeline, so.

00:23:18 Kirill

On my side, we're using something called a design study light methodology.

00:23:25 Kirill

This how I'm basing my time off.

00:23:28 Kirill

So the only thing that you should know is that there should be a working tool, more or less, by the 14th of November.

00:23:39 Kirill

Okay.

00:23:40 Kazi

Yeah.

00:23:41 Kirill

So, like over from the 17th to the 21st, it's scheduled to be able to, like for you or for anyone else to be able to try it out, you know, get if there are like any problems, any box, any features that that'd be good to have right to have like a law.

00:24:06 Kirill

So I can.

00:24:08 Kirill

add those things and correct those things in this week, and then for me to also be able to write a report, which is needed to my side.

00:24:16 Kazi

Yeah, and I've created a few slides just to, as we were thinking about the structure of how user would look at it because we're thinking about the speed as well, how the speed changes.

00:24:32 Kazi

and what it should show.

00:24:33 Kazi

I think it's similar, but if it helps you provide clarity, maybe Evanna can share those slides with you.

00:24:39 Kirill

Yeah, that'd be great.

00:24:41 Kirill

Maybe I can take that into consideration.

00:24:43 Kirill

Yeah, also, because obviously even there's like heavy rain.

00:24:47 Kazi

Yeah.

00:24:47 Kirill

Yeah, let me make a note of that.

00:24:50 Kazi

Yeah, Evanna, can you share and then explain them to him in five minutes?

00:24:55 Abhinav

Yeah, just give me a second.

00:24:57 Abhinav

There was some issue with my system, so I had to switch to my laptop.

00:25:01 Abhinav

I'll share now.

00:25:03 Abhinav

Give me a second.

00:25:10 Abhinav

I really if you can give me permission to share.

00:25:13 Kirill

Of course, let me stop and I got it.

00:25:16 Kirill

Okay, perfect.

00:25:18 Abhinav

Yeah, so it says that I just wanted to give you an overview of how the current system is.

00:25:26 Abhinav

So when you enter into a Aries IQ, that routing algorithm,

00:25:31 Abhinav

There you can select a variable.

00:25:33 Abhinav

For now, I have selected wind, which is this was giving a correct representation.

00:25:38 Abhinav

So this is how for Illinois, the wind is being shown.

00:25:43 Abhinav

This scale like insulator.

00:25:45 Abhinav

So if you do directions from, for example, DPI to Cobden, which is in Illinois, or the south part of Illinois.

00:25:52 Abhinav

So this is the path which it will show, and this is an alternate route which it will show.

00:25:57 Abhinav

Now, when we switch on the alternate route, so we'll have one alternate route here.

00:26:03 Abhinav

Probably this is something different.

00:26:05 Abhinav

Sorry, don't see this one.

00:26:07 Abhinav

And now when we select a variable, and then we select wind speed, for example, so it will show something like this, the last figure.

00:26:14 Abhinav

So you'll see two routes with different wind speed patterns, right?

00:26:19 Kazi

And at the same time, it shows the route comparison.

00:26:24 Abhinav

Yeah.

00:26:25 Abhinav

So it will show the route comparison and it will give you the best comparison based on how much distance is there and how much you're impacted on that particular route.

00:26:36 Abhinav

Now, for example, if I show you another example, like for from the same route from DPI to Cobden or DPI to Champagne, in this example, this is how for different timelines the wind is varying.

00:26:51 Abhinav

Now you see this brown portion.

00:26:53 Abhinav

It is increasing a lot.

00:26:56 Abhinav

Probably just imagine if this brown portion is a tornadic wind.

00:27:01 Abhinav

That means when the user is trying to start from DPI and he's going to champaign, he might get stuck in this tornadic wind when it is 7:00 PM.

00:27:17 Abhinav

And he'll be fully stuck when it is at 8:00 PM, right?

00:27:21 Abhinav

So that's what the wind pattern is showing.

00:27:24 Abhinav

But when we start from Illinois, it will only, currently the system only shows, okay, this is a wind pattern where our DPI is at a highest wind, but later on the winds are not that much.

00:27:42 Abhinav

But actually, what is the condition?

00:27:44 Abhinav

DPI is at 8.2, but the winds wind pattern is continuously changing, right?

00:27:51 Abhinav

So what we want to show user is, okay, at this particular location, if he's starting from DPI, at location two, he might experience 15.09 unit of wind, not 15.73.

00:28:07 Abhinav

And when he reaches champaign, he might experience 11.26, not 16.83, as an example, which this I'm showing.

00:28:17 Abhinav

That means,

00:28:18 Abhinav

This is a wrong interpretation, because this is a static data which we have seen.

00:28:22 Abhinav

But actual experience would be this when he reaches Shapin or reaching Garbana.

00:28:27 Abhinav

So our idea is--.

00:28:29 Kazi

Yeah, it's like when you show congestion maps, right, you see current congestion.

00:28:32 Kazi

You don't see future congestion when you reach that place.

00:28:35 Kazi

So congestion you can't predict, but at least the weather we can predict.

00:28:41 Kirill

Yeah.

00:28:42 Kirill

So for example, what I showed you with, you remember the map that had different colors.

00:28:46 Kirill

that's doing that.

00:28:47 Kirill

So identify a way to map it, but it is calculating that, right?

00:28:52 Kirill

So like over time, it is already doing that.

00:28:54 Kirill

So I just have to make some refinements and integrate multiple thresholds.

00:28:58 Kirill

Yeah.

00:29:00 Kirill

Right?

00:29:00 Kirill

So essentially, that's I wanted to see, so more or less, I see that we are like on the same page, right?

00:29:08 Kirill

That's the important part.

00:29:10 Kirill

And like if so, the only thing I'd ask from you is,

00:29:15 Kirill

to give me like the hard thresholds, which the system should like completely avoid, right?

00:29:22 Kirill

And I'll keep adding and I'll keep working on like alternate routes, doing statewide.

00:29:28 Kirill

So what I did this week and last week was just a proof of concept, essentially.

00:29:34 Kirill

Right.

00:29:35 Abhinav

So a quick question, Carol.

00:29:37 Abhinav

So right now, for example, you have done it for Chicago and you're seeing from O'Hare to a particular location to our hotel.

00:29:45 Abhinav

Now, we have 10 different users and those 10 different users put different locations, different route and everything.

00:29:52 Abhinav

So do you think it'll be fast enough or it'll hang or it'll be really slow if we do it in a production mode or if you put it live, the work that you're planning to do?

00:30:02 Kirill

So I'm also working on that.

00:30:06 Kirill

My guess would be, so for example, I'm running on Python, on my laptop, all in my laptop.

00:30:14 Kirill

If it does take some time to like calculate everything, but also like this, again, just a proof of concept.

00:30:22 Kirill

I'll try to, I'll start like making all of this faster each time, right?

00:30:27 Kirill

So I am,

00:30:30 Kirill

I'm trying to contract myself to work on my laptop.

00:30:32 Kirill

So whenever it goes to a live setter, which is way faster, it will work faster.

00:30:39 Kirill

It's not the ideal method of getting to optimization.

00:30:45 Kirill

But I think that this in practice will work.

00:30:49 Kirill

So for example, right now, to calculate a route, for example, from Moher to where I showed you, it takes about a minute.

00:30:59 Kirill

But that's like with some limitations in that I'm using egyptive notebook that is a bit slower than just running it in Python.

00:31:12 Kirill

Plus, I have already identified a couple of optimizations that I can do.

00:31:21 Kirill

Okay.

00:31:23 Kazi

Wonderful.

00:31:24 Kirill

Okay, so also another thing is

00:31:29 Kirill

I told you that I have to train a model to get what are the best weights to the best combination of weights to put into the roads.

00:31:44 Kirill

I know that you have some kind of model that predicts whether, but still, again, ask you if I can get access, for example, to your GitHub so you can just

00:31:56 Kirill

Search around, maybe I can get something useful to me so I can save that bit of time instead of doing it from zero, right?

00:32:05 Kazi

So you want access to GitHub to search for what?

00:32:09 Kirill

So you have a model, right?

00:32:11 Kirill

That predicts floating, right?

00:32:13 Kirill

That you're working on.

00:32:15 Kazi

Oh, that's a huge model.

00:32:18 Kazi

That's a very complicated model.

00:32:22 Kirill

Yeah.

00:32:23 Kirill

But you have your, you have your code on, for example, I like on GitHub, right?

00:32:27 Kirill

Like on a website, right?

00:32:29 Kazi

It's not on GitHub, it's it is, we can send you the publicly available code, but it is very complicated model, so.

00:32:40 Kirill

Oh, well, in that case, yeah?

00:32:42 Abhinav

Just give me a thing, are you asking for the flood data generation or the flood, how the flood data is introduced or put it in areas like your other platform?

00:32:53 Kazi

He's asking how the flood model predicts flood.

00:32:56 Kazi

Yeah.

00:32:57 Abhinav

Yeah.

00:32:58 Abhinav

Oh, I mean, I think in urbanite Kazi, just correct me if I'm wrong.

00:33:02 Abhinav

In urbanite, Fabbier is using that one.

00:33:06 Abhinav

But the Synex flow model.

00:33:09 Abhinav

Isn't he doing that?

00:33:11 Kazi

No, no, I think it will.

00:33:11 Kazi

Let's focus on the data.

00:33:14 Kazi

Let's focus on the data, because that's where we would require a lot of your help.

00:33:20 Kazi

so that you can really make enhancements there, focus and make it light.

00:33:24 Kazi

Light means very fast.

00:33:26 Kazi

I think that's where I think your contributions would be good rather than looking how that data is created.

00:33:32 Kirill

OK, yeah.

00:33:33 Kirill

In that case, yeah, there's no need.

00:33:35 Kirill

So I'll start then.

00:33:37 Kirill

Just send me Slack, for example, just send me what are the hard thresholds of when I should discard a rod completely, and I'll start working on

00:33:47 Kirill

these multiple routes and combining everything and optimizing and trying it into like a state level.

00:33:53 Kirill

Of course, yes.

00:33:55 Kazi

Okay.

00:33:55 Kazi

Thank you so much.

00:33:57 Kazi

That is super helpful and great progress.

00:34:00 Kirill

Thank you.

00:34:03 Kazi

Okay.

00:34:04 Kazi

And you are from which part of the world?

00:34:07 Kazi

You are going back after December, right?

00:34:09 Kirill

Yeah, I'm going back.

00:34:09 Kirill

I'm from Mexico.

00:34:11 Kazi

Mexico.

00:34:12 Kazi

Okay.

00:34:12 Kazi

Which university in Mexico.

00:34:14 Kirill

It's called Technology Monterrey.

00:34:17 Kirill

Tech de Monterrey.

00:34:19 Kazi

Glad is the same, yes, she knows the place.

00:34:25 Kirill

I can, for example, I can send you the link to like the whole page to my university, just if you are interested.

00:34:31 Kazi

Okay, yeah, thank you.

00:34:34 Kazi

Okay, take care, guys.

00:34:35 Kazi

Take care.

00:34:36 Kirill

Bye.

00:34:36 Kirill

Okay, take care.

00:34:38 Kazi

Thank you.

00:34:38 Kazi

Bye.

00:34:41 Kirill

So yeah, then, yeah.