Shannon Strelioff - The Analyst Making a Buzz

[00:00:00] Welcome to analyst talk with Jason elders like coffee with an analyst, or it could be whiskey with an analyst, reading a spreadsheet, linking crime events, identifying a series and getting the latest scoop on association news and training. So please don't beat that analyst and join us as we define the law enforcement analysis profession.

One episode, I ahead time.

Thank you for joining me. I many aspects of your life are progress. My name is Jason elder. And today our guest has six years of law enforcement analysis experience. She's skilled in GIS link analysis and coding. She's even one of Charlie Giberti's analyst of tomorrow representing the great city of Toronto.

Please welcome Shannon Strelioff shannon, how are we doing?

I'm doing great. Everything's awesome. How are you? I

am doing well. When we spoke yesterday on the prep call, I had got the sense that, you know, you get a little bit cringy when people talk about you. So when you heard that you were on Charles's [00:01:00] analyst of tomorrow, , how did that make you feel on a scale of one to 10 on the cringy

scale

on cringe? probably like a 10.5, but then there was a side of it. It was felt kind of nice to be mentioned, Uhhuh, I respect, Charlie quite a bit and I thought, Hey, I'll take it for this. But I generally don't like the spotlight on me, which is funny. I've accepted this call, but here we are.

and it's

funny for me too. We met at the IALEIA conference in Dallas last month. Mm-hmm and it even gets me a little unhinged. And uncomfortable when I introduce myself and someone will be like, oh yeah, everybody knows you. You're a rockstar. And it makes me like, oh, like that's, mm-hmm, , mm-hmm feels,

I don't see myself that way. It almost makes me feel pompous. It makes, which makes me uncomfortable

So, right. I know it's a bit [00:02:00] uncomfortable and I, I feel like I'd rather, give the spotlight to somebody else and, , let them grow and help them. And they even wanna take my name off of what I've prepared.

But you know, I mean, it's just different personality types, I guess. it

is. And I don't know what it is because I for a long time, I thought it was that I was an introvert and then people explained to me like, you're very much not an introvert. But all I know is there is definitely this social discomfort that, that I experience that anxiety, whatever you wanna talk to me that it takes, it took me a really long time to get over.

And I still find myself getting into every once in a while.

If I'm not careful. Yeah. It is an interesting it's even when you wanna write out your bio of what you've done as sometimes I look at and I say, oh, do I really wanna mention all this stuff? Does this make me sound a bit, full of [00:03:00] myself?

Exactly. I mean, how else will people know? Right. Yeah.

So, yeah. Alright. Well, we gotta do this. We gotta talk about you. That's what

we're

here to do. So it's okay. Here we go. Big, deep breath. All right.

So how did you discover the law enforcement analysis profession?

So this was I actually, originally, I never thought I would be here, but I, I guess, to go back to what I studied in school is cuz where it really started is so I studied geographic analysis at what is now called Toronto metropolitan university, which is a program that focuses on geographic information systems, cartography, spacial, databases, programming, and environmental science.

And at the time I had dreams of being, you know, maybe a David Attenborough or a David Suzuki type of person. I thought I was gonna travel the world and explore like all these really cool ecosystems around me. And and I can't say that dream is dead, cuz I [00:04:00] do love being outdoors and in nature, but my, , trajectory of my career definitely changed.

And this was when I fast forwarded to my master's degree at Toronto metropolitan university where I studied spacial analysis, which is a one year intensive program in VOing. You know, teaching and research, assistant work and course study and thesis writing. And it, it focuses GIS and cartography and, and programming.

And I thought, you know, Hey, I love the environment. I'm going to do an internship. And that's a requirement of this program is to do an internship with an environmental agency. But when all of these I guess agencies come and speak to the students, one of our law enforcement partners came and spoke to us about the type of work they did.

And. I became fascinated with the speaker about, wow, my analysis can be used for, you know, crime and intelligence analysis. It was, completely new to me. And I felt like, , a little [00:05:00] kid in a candy shop. Wow. This is so cool. So instead what I did is I decided I would apply for the internships in crime analysis.

And I thought, what am I doing? Am I, leaving what I really wanted to do behind to try something different, but, you know, I thought, Hey, why not? There's nothing you can lose. And I ended up being successful in landing an internship with Durham, regional police, which is just east of Toronto. And it's you know, covers has a bit of, metropolitan type of landscape, but also is, , quite vast and, and country and, and a bit different than Toronto.

So worked there for a bit and then also did an internship with Toronto police and And now here we are position came up in criminal intelligence analysis and I was successful in that process. And the rest is history, but I can't say I've left my love of nature and the environment behind, but it's more of a hobby opposed to my career.

And I, I love what I do now. So nice. So

when you look. [00:06:00] Back at your internship, your first one there, and you're walking into the police department for the first month there. Cuz you didn't seek out being in law enforcement, you sought out being in outdoors. What do you remember , was there something, but in particular that shocked you, it stuck with you to this

day?

Hmm. I'm trying to think. I think there was definitely a bit of intimidation as a, as a new employee. You're young and you're kind of, you're pretty green. Right? Mm-hmm and and there were elements of it where I thought I was gonna be outdoors and all of that. And I don't know. I think I just kind of, my idea was a bit shy probably is I remember that being quite.

Quiet in the area that I was working. And as I slowly, I, I kind of am a bit of an observer first before I jump , to talking. And so mm-hmm, , I think my first initial was a bit out of my realm of what I really knew. [00:07:00] And obviously you're a student, so you think, you know, a lot, but you have plenty to learn still.

Right? So definitely a bit green and overwhelmed were my feelings. Yeah.

So what were you some of your tasks as an intern?

As an intern, I worked in a crime analysis unit and I was assigned to develop and test a risk terrain model for a major crime type of my choice. And in which case I chose street level robberies now to give more contacts for listeners who are unfamiliar with risk terrain modeling, it's a multi criteria technique, which explores the combination of crime related geographic factors.

Using GIS. So geographic information systems to assist in mitigating future crime events. So what it'll do is once you've ran this process and develop, it produces a mapping surface, which represents the frequency of these crime predictor variables. [00:08:00] And this model is validated through regression statistics.

So , this was one of my duties as an intern at Durham regional police. And the way that I initially approached this problem is I had identified potential predictor variables of street level robbery in Durham region. And these variables. Had a geographic component. And the way that I identified them was from, literature view of previous, , criminal crime analysis papers, or people in the field that were I guess subject experts on this.

So in which case, then I built this model and. Overall, it concluded with me identifying risk factors of street level robbery within the Durham region, as well as their variation of distribution based on their urban and rural landscapes.

So if you can remember what, what were some of the variables.

That you identified for this risk train [00:09:00] modeling for robbery mm-hmm .

So what I did is I actually grouped these variables into high level categories the way that I did this, so I actually had a group and I called it. Cash economy . And so the justification around that was an offender targets victims within proximity to cash access or potentially carry cash.

And these variables that, were under this particular group were prostitution locations banks, alcohol retailers, convenience stores, and drug arrests. Okay. And I had a series of definitions that fell under each of those variables. And then I had another group. I had vulnerable victims. So offender who targets victims, who are vulnerable, less inhibited or under the influence of alcohol.

So this was, you know, alcohol serving establishments. The idea that when somebody, , leaves a bar late at night, they're less inhibited potential could be surrounded by street level [00:10:00] robberies schools, and then prostitution locations. And those were a couple examples of, of what the variables that I had had worked with.

Yeah. I find it interesting that it's more than just crime. So it's the relation to convenient stores or banks or bars. I mean bars, everybody probably would've named bars, but mm-hmm, some of these things that you may not have considered where geographically how far distant you are to many of these variables will increase your risk

factor.

Mm-hmm most definitely. And the one thing that, I mean, this was a testing model and one thing I would probably add, , on top of this is that you could also set buffers to , your locations. That if you were joining it within the model, it could be not necessarily the location of the alcohol serving establishment, but it could be maybe within, you know, 500 meters of that could be actually your [00:11:00] catchment area for analyzing that.

But I kind of, the, what I had done with mine is I had kind of remained within just the actual location. Okay.

 So then for the, factors that develop for robbery is the target audience like street level officers to be more knowledgeable about a certain area, or who was the target audience for your

RTM at this time, I was responding to the analytics unit. So this was more of a, a command type of request.

Mm-hmm so awareness, I guess you could say it was a strategic product of understanding, you know where are these locations are and what possible factors could influence them. And then can we use this model to, actually predict, , areas of this crime in particular, and could this be used as a model for assisting command and in better awareness of these [00:12:00] locations?

So, no, not, not directly on the ground, but it could feed crime prevention initiatives that might be set from a command point of view. .

So is that what you also did when you interned. With Toronto.

No, I didn't. So I did that with Durham and it was more of a kind of testing phase with that.

And it was very interesting. And then when I was with Toronto I assisted with developing the internal mapping training. And so, we had a bunch of manuals and howtos, and I kind of evolved that training into I guess, videos and more interactive training and, and helped roll that out as an intern.

Okay. Who

was the target audience for the

training, the target audience of the training wise and, and currently is the Toronto police service crime. Or any other members who are keen to expand their skill sets and crime mapping

techniques. So this, after you interned with [00:13:00] Toronto, , then this gets your foot in the door in terms of becoming

an nail analyst, Toronto mm-hmm

Yeah. So eventually, , there's a posting Basically, I mean, after or being there. And I was successful in that area. I had a lot of great mentors that I had , made along the way who really helped me in terms of, fine tuning, what kind of skill sets these positions.

Would look for and what other, skills I might need to acquire. So I was really active in that along the way. Even before a posting came up of just kind of almost annoyingly reaching out to people saying, what do I need to do to work here? Yeah. How can I, become better and, and what do I need to do?

And I, I still feel like I'm still doing that. So,

yeah, I, feel like a broken record on this show about how important either internships or volunteering or whatever it is, any experience that you can [00:14:00] get at a police department pays dividend. Eventually. I really feel that the fact that there's somebody at a police department.

It sees who you are, sees your work ethic, sees how you get along with others and even sees your work projects and that when it comes time to hiring and you can be spoken for so to speak that that is invaluable as opposed to somebody that's just coming in with a degree in their hand and doesn't have that internship.

Oh, I think co-ops and internships are, they're a massive learning experience. I I look back at how much I learned from that. So I'm huge advocate for co-ops and internship. All right.

So what is the makeup of an, the analyst unit there at

Toronto? So there are two major analytical units in charge of analysts at Toronto police service, and they [00:15:00] are analytics and innovation and intelligence services.

So to give more context to this is analytics and innovation oversees crime analyst roles, whereas intelligence services oversees, criminal intelligence analyst roles. I kind of wanna, , rewind to when I was at IALEIA conference in that from speaking with different people, it appeared that at, at smaller units, that intelligence analyst role and that crime analyst role kind of fit under , one hat.

If your agency was smaller now, our agency is, is quite big. So there there's likely availability of more resources. There's, there's far more units, so there's a clear divide or division between the criminal intelligence side and the crime analysis side, which in turn do assist each other. But they, they take on different duties.

So going back to the makeup of these units is that both of these units are made up [00:16:00] of both centralized and decentralized analysts. It is quite a lot. So a lot of people to kind of bring on the same page, right?

Yeah in which case I'm on the, the criminal intelligence side, but our criminal intelligence analysts are aiming and their mandates a bit different are aiming to answer questions about crime and people. So they're looking to answer those questions of what, where, when and why. And the basis of their work is, is very much people focused.

So they're fulfilling tasks of tactical and strategic intelligence requests for stakeholders. Such as investigative units in command. Now on the flip side, you have our crime analysts and their aim is to answer questions about crime and occurrence data. And those questions fall in what, where and when, and the basis of their work is event focused.

So it's common for these roles to fulfill high level statistical crime requests and mapping [00:17:00] and, and say other tactical strategic products for frontline officers, as well as command. To give you more an idea of how we operate is that within and as I spoke before I said, you know, centralized and decentralized roles to go back to our intelligence analyst is that we have a set of centralized analyst roles at intelligence services who work at a common location.

And they respond to strategic intelligence requests, which is usually for unit commanders or other senior command. Whereas we also have a set of those decentralized analyst roles at intelligence services or they work under the hat of intelligence services, but they work at varying locations and support specialized units.

So such as squads and And they respond to tactical duties. So they are supporting our investigative units such as homicide drugs, gun, and gangs, financial crimes and sex crime. And the whole idea of that is that we have that [00:18:00] centralized unit , of strategic analyst.

And then we have those decentralized analyst and it's supposed to kind of work in closing that intelligence cycle. So one of the

things that we wanna talk about today is just to the idea of data governance and the processes that are in place there in Toronto

basically I mean data governance is a, is a massive topic.

And sometimes in some places, a bit of a buzzword . But it, it's the process of managing, , the availability, the usability, the security of the data that you have and what we already have. In place at Toronto police and I'll speak on the intelligence services side of things is that, we have a set of policies in place to practice that data governance specific to the rules of handling information.

And when you're viewing that information, , what is it marked as? So when I say marked a new analyst that is coming into [00:19:00] intelligence services is. Trained on varying protection levels and restrictions of the information that they are going to handle and what they can do with it. So that's kind of initial something.

That's, , one of our better practices that's set up now, I kind of like to be creative about this topic and how data governance can be involved in an analyst day to day function in that an analyst can set the data governance to what they're doing. So in one of the, areas of data governance would be the storage of data and the standardization of information and an analyst can.

You know, put the information that they're handling and, make it be understood better by whoever is viewing it, or they can do best practices to store it better. So in which case this is something that I have quite a a big passion for, and, and that's the, [00:20:00] the better storage of information and accessibility of it.

And I have worked with varying analysts on something as small as. Assisting them structure their day to day for better retrieval of information. So it doesn't always have to be this massive project of, you know, this big overall data warehouse. It can even be practiced in your day to day of as small as.

You know, everyone is using a common format of an Excel spreadsheet format, and that makes it easier for all of our analysts to retrieve the same type of data better. So are we pulling the same information? Are we, , structuring in the same way? So it makes it able to repeat what we've done easier.

So that's on a smaller scale with what I have involvement with, but I've also been involved in much bigger pro processes or [00:21:00] projects you can say of involving data science techniques, such as SQL programming, database design, and standardizing the way that we do things to retrieve our data better.

And the way that you can ensure that you keep moving forward with this data governance, at least what I feel Is is constant training of your analyst team and beyond training, just casual check-ins with your analyst to ensure that what they're doing is done within the lines of, of what we have to follow.

But also if they're struggling with, a part of their day to day analysis is that maybe it is actually something broken in the way that our systems are. And the retrieval of our data, and maybe, how it's structured and, and taking that from everybody on a more day to day basis can help us better that accessibility in my time here, I've been on various projects

and this is something that, [00:22:00] unfortunately it doesn't sound as, I guess, if you wanna say sexy to other things of, oh, I solve this or solve that, but it's really important in your day to day. And that's the standardization of data sets and developing new processes to. Long term, make everybody's life easier and streamline how we do business.

And that's in the realm of, data basically. So in not just law enforcement and it's done where we are, is taking, you know, a series of different data sets and, marrying them up so that you can pull, trends across them. And so we've done that. And I've been on various projects to do that as low as even just, you know, helping an analyst standardize and organize what they're doing on a day to day to what's relevant, to collect to larger scale projects that involve data science techniques, such as data place implementation, SQL and [00:23:00] programming, and actually, you know, Managing that project and having involvement with a series of different stakeholders across the service and other analysts and software engineers.

And that's just to help our, , data retrieval methods easier to retrieve. I mean, this is a massive, massive topic, and I feel like it's a bit of a, a buzzword lately that we're all learning is an ex and is also extremely important too.

With implementing or having, as many analysts as Toronto police does, it's extremely important to continue to. To train our analysts on exactly what data sets that we do have and at hand, what you can do with them and what's appropriate. And using them effectively in their day to day.

That's , a growing process of it's a big undertaking by a lot of us, but it's constantly ensuring that what we do and, and doing it right. So we have a team of us who are [00:24:00] dealing with data, a lot of data on a day to day, which I've heard in some of your previous podcasts, which I completely agree with is that, you know, more data is not always good data or mm-hmm, a good thing.

And I think it's important to also, in data governance is to constantly iterate that right. To, to carry that on to other analysts is that, you know, we're in this world of exciting data, but to also understand what's appropriate to do with it and, and all these other areas around it. Then rather just say, I have a lot of data

Hi, I'm Kyle McFetridge. I wanna talk to you about merging in construction zones. Now I know this can bring a lot of frustration, but I think maybe fully understand how they built a construction zone will help people understand how to make it flow better. Everybody sees that there's an empty lane. If the construction is on your left, on your left, and people [00:25:00] immediately try to merge into the right lane, this causes backup as someone who's worked in the, at the department of transportation, I can tell you it was designed.

So both of those lanes are full. This typically causes people to flip each other off, honk or swerve to avoid people, passing them on the left side. I'm here to tell you that you have been wrong. The proper way to use this construction zone merging is to drive the cars all the way up to merge one. And after the other kind of like a zipper, now, this seems counterintuitive to culturally how we've done it over the years, but ask yourself.

What makes more sense, keeping a road traffic blocked. So other cars can just slide over whenever they want causing a traffic jam to build up, or one by one car is merging. Also think about the fact that a mile before you hit that merge zone, a car passes you on the left and you don't seem to mind at all, but a car passes you in the construction traffic zone, and all of a sudden that person is wrong.

So next time you're at the [00:26:00] construction merge zone. Please help everybody get through the traffic faster and use both lanes and merge right at the end of that construction zone.

 So not only are they being introduced to all the tools and the data, they're also being introduced to the various people and their roles throughout the department.

Yeah. So they're introduced to the different units and, and at least, their main central unit they're always introduced to, in that, if they're at intelligence services, There is always, , a first day of introducing them to, to everybody in the building and sharing that people know who they are to the unit commander and their management.

And then also, to keep up with, if you came in as like a loan analyst, ensuring that there's those, , monthly, or, every two month analyst meetings to collaborate with those that are centralized and decentralized.

Yeah. I'm curious to know [00:27:00] some of the backgrounds that you've brought in.

What are some backgrounds of, some of the analysts did hire? Yeah,

so we hired people that came from you know, transportation analysis organizations. So Metro links in, in Toronto and also major banks. In the area of though they did have, I guess, you know I think they worked in the fraud department in fraud analysis.

So, you know, it overlaps in that area. So not law enforcement, but, but at the bank, I'm trying to think of some of the other people that we hired. People not in law enforcement. I mean, this is still a similar trend, you know, people from military mm-hmm , but that you could say overlaps. Sure. Yeah, but people then mainly from banks and Transportation analysis areas.

That's interesting. So the bank seems like a good fit cuz you had the financial element. I I, a little bit surprised with the transportation

[00:28:00] mm-hmm yeah, well I think some of them, and then, I mean, tho those individuals had had internships with law enforcement. So I guess you could say they had a bit of experience with the law enforcement area, but not to, a great degree, but the types of skills that you're developing, maybe outta transportation organization is those same, SQL mapping you know, data analytics and stuff like that.

Even kind of, you know, preparing, , strategic documents for, maybe in the realm. Transportation, but some of those may kind of go hand in hand a bit.

And then, so you are now a, acting senior criminal intelligence analyst. Mm-hmm are you a senior now or are you still acting

I am still acting as the way that it goes.

Right. So we're filling in for a leave right now. And so I did six months of acting and then here I am, again, [00:29:00] popped back into the role again, filling in for more of the leave. So it's been, it's been fantastic. It's been a big eye opening experience that I've learned a lot and definitely, , moving away from the pact and kind of supervising now.

So that's been. I can't complain. It's been great. Yeah. Have you

done much hiring since you've

in this acting role? Yeah, we did some hiring last year, I guess it was in, I can't remember the exact dates, but yeah, we did a whole process, which involved you know, a test that people had to do.

And then you know, the interview process and then during the interview process, you know, preparing , a case study or whatever for presentations. So, and that requires quite a bit of , you're sitting there listening. It's quite a lot of, quite a lot of work of choosing the best candidate.

And also it's hard it's become a lot more competitive. I mean, I have to say a lot of people that were applying were great candidates. It's, you know, [00:30:00] how do you, how do you choose between, right? And they're obvious there's a scoring and everything, but it, it is it's. It's very competitive.

Now, ,

you're acting, you're going through this position, hiring new analysts, talking about the process and improving the analyst unit there at Toronto.

And do you feel that you have a certain philosophy when it comes to hiring? I know you're looking for maybe backgrounds other than law enforcement to bring some diversity into the department, but do you have other philosophies that you've developed with these hires? Mm,

so I like to remember when being involved in the hiring process that I kind of play this game or, or maybe not a game, but I ask myself and, and those on the panel that were I'm deciding with.

Is a [00:31:00] series of questions about the candidate's traits after, and, and I go through a set of things of, you know, does this person exhibit leadership traits in their examples? Are they innovative? And do they appear to be empathetic? Are they an overall team player? And based on, you know, I like looking back at their resumes and, and seeing with what they've previously done, do they have, you know, community based experience?

Are they willing to get involved with those around them? And That goes beyond just their initial, , entry of, are they technical, , are they able to do the job, but beyond just doing the job, you wanna make sure that they're able to, to integrate with, with the teams in an appropriate way, in a good way to be successful.

So obviously

Toronto's up there in Canada. And I always like to ask the question of, you know, compare and contrast your area [00:32:00] to the states.

Mm-hmm mm-hmm so I think one of the most obvious. Comparisons in how it contrasts is that, and, and this is even globally, is that, you know, Toronto is one of the most diverse cities in the world and it's extremely multicultural.

And I think in turn that has you know, effect on some of our, our, I guess key like core values of, of a service is, is in our efforts of community based policings and policings policing in, being more integrated with these groups in our city and and outreach But I feel like it's, it's the way to answer this question is giving more context to I guess I'll, I'll speak to Toronto police service.

So in terms of its size, Toronto police service has approximately 7,800 full-time and part-time uniform and civilian members. And of those members, there's [00:33:00] 5,400 officers. And about these are approximate numbers, but 2,400 civilians. And in, in that, these individuals are serving the city of Toronto, which is approximately 2.7 million.

So. Think in comparison, it it's, it compares in size to Chicago, but probably not in crime. So just for context, and I was looking at our open data portal with Toronto police and I looked in 2021, there were 85 homicides. So

yeah that might be one month in Chicago.

yeah, I think I, and I don't know if these numbers are like accurate when I was looking at Chicago's, but I was, it was, I accurate when I was looking at, it was about 800 something like that year end 2021. Does that sound

okay? No, I, I haven't looked at those numbers in a while, so it's, if that's the numbers you saw that's, that's probably accurate.

Okay. Yeah. I hope I'm not [00:34:00] exaggerating right now, but yeah, so, I mean kind of to give a bit of, of context of Toronto, but in which case, I mean, When I was at the EEA conference, the, the one thing that was, was interesting, and I could find a lot of, of commonality is that in terms of our practices, there was a lot of similarities in terms of our basis of training.

So our analysts, our. Split between, , training on strategic and tactical approaches to solving problem. And the intelligence cycle is at the basis of our operations. So I feel like as much as there, there are differences there was also a lot of similarities in, in how we do things. Yeah.

Now, do you have issues in Toronto that are maybe unique to you, Toronto or you just don't see.

Or hear about from other other places.

So I think I'll just list off the, the most recent unique occurrence [00:35:00] or, you know, crime type that was happening in Toronto is that there's been this focus on auto theft and the increase of auto theft in Toronto. And most interesting last spring in 2021, there was a series of individuals who were charged in connection to a cross border high end car theft ring.

And they were stealing. High level vehicles and this was going on. And, and since then, there's been a lot of focus in Toronto on the, the increase of auto theft. So I'm always, you know, when I park my car at night, I'm checking it. No, no, not at all, but I, so that's good, but I'm still in the back of my head.

I'm like, oh, okay. But no, the type of cars that these people were were stealing is Lamborghini, you know, rose Royce. I don't have that. I mean, I'm a government worker here. I thought, well, maybe

that's [00:36:00] what the contrast of the, what they pay analyst in Toronto.

Right? yeah, yeah, yeah. I wish man. Let's show up with a Lamborghini.

Yeah, now do

you know whether these high end vehicles. Were being shipped and sold whole or were they being stolen for parts? Do you know what the thiefs were doing with

the vehicles? Well I know that they were, I mean, it was cross borders. Mm-hmm so they, they were shipping them off. I can't confirm, I think that they were actually, I don't know if they were shipping them in whole or for parts.

I believe it was in whole. but they were shipping them across. Yeah.

Yeah. So that's, yeah, that is, I mean, you would think those folks that have that kind of vehicle would have the best security system, you know, load Jack and, and everything else, GPS devices, knowing where that car is at all, all times of the day.

You think, you think, but I [00:37:00] mean, and, but what's interesting if you look across them, I mean, these are very expensive vehicles, but then you look, it's like no Teslas because a Tesla is a computer yeah. It's like, as soon as you, you know, would even like, you know, step near a Tesla, it's actually, I had one time where I was backing up in a parking lot and the Tesla, nobody was in it and it just honked at me.

nice. Yeah. So that's the thing it's funny. So, I mean, of all these. Know, highend card where you think there would be a GPS. Yeah. Not at

least even better. Yeah. Just follow the, the model for the test slide and that you have to log in, but then everybody's gonna get mad cuz they can't remember their username and password.

Right,

right, right. Exactly. I know. Oh

man. All right. Very good. Before we move on to personal interests, I [00:38:00] do have a couple more questions analyst related mm-hmm and so you have a background education wise. In GIS. Yeah. We talked about that. And in terms of law enforcement analysis, I feel with a lot of software programs, we just barely scratch the surface in what some of these systems can do.

Mm-hmm if you think of link charting, for instance, it seems like most of what analysts do with a link charting software is either a timeline or they're doing an actual, just a link chart of connecting one person to the other or an entity or a place or whatnot. They're not really getting into the science of social connections or running any particular test on nodes .

Right. Right. And the same thing with think statistics is we're. [00:39:00] Basically just on count mm-hmm and that there isn't a lot of scientific testing going on, right. In many aspects. And then you get into GIS and it seems to me that most of the time, we're just putting dots on a map. We're not really getting into the science of geography.

And you talked a little bit about it with the risk train model when you're putting in different layering, but there seems to be, there is so much more to GIS than just layers and dots.

Oh, there

is so much. And it just, it just doesn't seem like we pay any attention at all of trying to apply some of these scientific models, if you will, to the law enforcement analysis

process.

Yeah. So There's a, there's a series of different things that I I would like to see more of in the police department using GIS. Some of them, I, I do see [00:40:00] infrequently but starting off with the visualization options that GIS or various programs of it offer can be extremely useful for assisting investigators or command or various stakeholders.

And in particular as portal for visualizing dynamic maps is really useful. I think it it's very common to, to use a static map. You know, you'll print it off into a PDF format and, and that. Completely fine. But there's, there's a series of things that can be done in, in are SRE portal and display that, that change of crime over time, which can tell a unique story.

Now our analytics and innovation does have an open data portal where they're using as portal, which is. Is is very effective though. I'd like to see more of this used internally to, you know, telling a story of the information you [00:41:00] know, opposed to just a static map. And I'm not saying that it's not used it is used but I think that it could be used in more, more ways than it than not.

Something else that's really interesting in GIS is that and I've seen this done for investigations is, is these time series visual videos to show, you know, the movement of a crime of interest over time. And that can be extremely helpful when communicating with an investigator or communicating with you know, other analysts or honestly any stakeholder within.

The police, when you really need to demonstrate what's going on you can access that in GIS and plot that out to tell a story, which I, I love to see those kind of products. And I think they're very effective opposed to just creating a static map of our common kernel density. Right. So I find that really unique, but one thing that I recently saw used, and I, I would like [00:42:00] to see this used more is this emerging hotspot function, which I think is, is pretty unique is rather than just having, you know, the hotspots across the city is that you can use data over a series of time and.

Using this emerging hotspot tool will you know, identify patterns within those densities or count values of that fall within a, a RA area. I believe it's within a RA area and, and show, you know, what's going on within your clusters and

they call them these emerging hotspots and they're categorized within, you know intense, fine hotspots, persistent sporadic, historic hotspot, cold, hot, or cold spots, and a little bit different than just your overall Ker density of showing high to low, which I think is really unique.

And I I've, I've seen it in a couple of reports and I thought it was very interesting and it, [00:43:00] it definitely gave more, I guess, more meaning for the data that they'd used.

Yeah. How, how easy was that to set up at

it? Wasn't too hard. No, it wasn't. It was basically just using, you know, historic crime data and running the process within Esri mm-hmm so.

Not really any harder than than running a kernel density process. And kind of the theory behind it is similar to something that you would, you know, any of those hotspot analysis. Tools that you use it's, it's clustering of point densities and summarizing that information. So it's something that people are already aware of.

And it's obviously, if you're using it, you wanna dig deeper into to it. But I saw it done for a couple of of crime types and I thought it was a really interesting take on the analysis.

Yeah. And it's interesting because part of me feels like the RI portal, great communication tool.

It's a, it's a great platform [00:44:00] to tell the story as you described, or to explain what's going on. But it seems to me. There's not a lot of new tools out there in which geographic theory is being implemented. Mm-hmm , I'm thinking back when I show my age here, I, when I started working with our GIS back in the early two thousands, we had, you know, animal movements tool and there was, , we ran kernel densities, and we ran nearest neighbor tests.

Mm-hmm and. I don't hear much of that being discussed anymore. When I talk to analysts or when I go to these conferences, I hear the, the edge portal and how great it is. Mm-hmm , but I don't hear a lot of new tools and techniques based on the science of geography.

Oh yeah. I, I very much agree with that. [00:45:00] And I think it's, I think there is a, an interest in the visualization tools is I think that's where it's gone is

there's, that's maybe taken over a lot of the, the actual power of the platform, because I mean, you could visualize in another platform, right?

Mm-hmm , but there's a lot within our pro and R GIS that you can use to. That have statistics and all of that. So that's where, I saw the emerging hotspot, it was, it was put in a report by one of the analysts I worked closely with. And I thought it was a really interesting take on, on what we normally do.

We're so used to pushing out that kernel density, people love those maps and they are very useful, but. I thought the emerging hotspot spoke more to what's happening with this data. And is there something that you can see because it's, it's a series of data over time? It's showing you [00:46:00] like, is there something a hotspot that's persistent?

Is there one that's maybe intensifying and, and, you know, maybe consecutive or is it something new? You know, and I thought that was really interesting, cuz that could be almost act as, and I'm I'm I haven't tested this, but it could act as like an early warning system of your data. Right. Mm-hmm obviously with a, a series of other factors, like, you know, fields, field knowledge and all of that, but I, I thought that was something where it, it kind of excited me a bit because we're so used to just visualizing and it was nice to see somebody being creative with a, with another tool.

So,

 All right. And then let's put the crystal ball on up now. And so what would you recommend an analyst study today? Because in five or so years from now, it's going to be

important. I believe the area of data science is really important. We're only [00:47:00] seeing that, you know, data, data, data, you know, is this buzzword and we're only getting more of it.

Right. Mm-hmm and it's, it's more, you know, increasingly important that analysts understand how to handle large data sets and. Incorrectly, you know, like analyze them or retrieve from them and you know, build proper structures around in, you know, in their work to actually handle that. So I think, you know, still an emphasis on, you know, the statistics and not only just because, you know, in data science, you're learning statistics, programming, and databases and, and stuff like that.

But not statistics to always, you know, use those, those tools. But it also allows you to, to build that, , basis of critical thinking and analytics. So I think that's a, a massive area for growth. And also focusing on, the data and [00:48:00] science area that we're not software engineers, but we're looking at the data and trying to retrieve, you know, interesting patterns from it and understand what it means.

So really defining that difference between, you know, you're still learning a bit of programming without being one of those other core functions of a software engineer and how that data science role can, you know, be leveraged with, with a software engineer.

Okay. Interesting. All right. Well, let's finish up with personal interest then.

Okay. And you are a cyclist.

I wouldn't call myself a, a, like a, you know, professional cyclist, but I am a. Biker in the city. well,

I wasn't gonna accuse you of being in the port de France. You're right. Okay. But I

mean, goodness, my, my cyclist friends would listen to this and think, what are you saying?

but so, but you bike outside and you do the spending classes, right?

Yeah, I do. Well, the spending is, is a new thing and that [00:49:00] I'm really enjoying I've had quite a few injuries. Various activities I've done. And so spinning seems like a very safe place to be . So I have so many injuries that I just it's time, it's time to do something safe.

So it's, it's great. And I love the cardio and I also love to get outside in the summer. So yeah.

Well, that's, that's good now. So do you do a lot of

outdoor cycling? Yeah, like I'll do you know around the city, I think with gas prices being so high now park my car, like, you know, on the weekends. And you know, if I'm meeting up with friends in the city to grab a coffee or, you know, go for dinner.

I mean, I'm on my bike. So what was something new is last year I bought myself a brand new bike, which I've never done before I actually inherited my dad's like old 1980s road bike , which was way [00:50:00] too big for me. And, and so I, I sold that. Last year and I got myself, you know, a bike that actually properly fit me so, yeah, I've been using that.

And my goal is to bike, to work, you know, once, once a month, I'm just gonna say, but for right now, I'm just a cruiser, you know? Yeah. I bike to the beaches in Toronto and love it. So how far are you with from work? I'm probably, I mean, Maybe, I don't know, 15 kilometers, so it's really not bad. But it's I was hoping you would say it in

kilometers.

Oh no. I knew. Oh, I knew after I said it. Okay. Yes.

15

kilometers.

So those at home, if you have to do the calculator kilometers to miles, but that's okay.

Yeah. That's okay. yeah, they, they can, you know, if you're an analyst go for it, but it's, it's all uphill. Yeah. So that's, that's quite a bit, but I've only, I've actually only done it once.

And then I told myself now with the [00:51:00] weather getting warmer, I'm like, I need to, I need to get on this.

So yeah. Now do you, but do you have a locker room there at

the office? Yeah. Yeah. So we have all that. We've got, you know, the showers and everything, which is perfect. And then I can just, , pop, my bike.

You know, in my cubicle and it'll sit with me for the day. So yeah.

How do you feel that streets of Toronto are. Biker

friendly. I, they've definitely changed to accommodate bikers. In the past probably five years, I'd say they're a lot more biker friendly now. They're setting up, , the city is set up, you know, plenty of, , isolated biker lanes.

There's still are lanes. Mm-hmm , there still are some of those, those ones that are, you know, you're with traffic, but it's a set, no biker lane. The, the trail that I would take to work is actually it's within the Dawn valley trail. So that's completely separate from traffic and you are, biking through, past a stream [00:52:00] and you're seeing various animals along the way.

So it's, you know, I get my environment analysis, I guess, in during that time. Yeah. Yeah.

 With my kids, when they they've been telling me like, oh, let's go out to eat and I'll be like, you know what? That's within biking distance. So , I will say yes if we bike there.

So, but most of the time, so far that deters them from wanting to go

oh man. I know the struggles is like, when you were younger and your parents were like, let's bike. It's like, no, but now it's like, oh, I need to get out. I need to exercise.

yeah. So, all right. Well, good deal. Well, Hey, I hope that you get out and about cycling and bike to work more often.

That sounds,

yeah. Yeah. I, I it's it's it is really great. It's a really fun thing to do. And you know, with the warm weather we have to us in Toronto, we take advantage of it because come. No [00:53:00] November and December, what do you get about two months of warm weather? Yeah, basically. And then it's but you know, if you see Toronto people really take advantage of the warm weather, because, , we know we're gonna be stuck inside for a solid, you know, visit good amount of time and it's gonna be snowy and cold, but that's also a, I, I love winter too.

So I mean, I can't complain. Right, right. Yeah. But so

yeah. Yeah. Well all you have to do is wait about four months, so it, you get full, you get full

seasons there oh yeah, exactly. So I mean, a little bit jealous of Florida and being, you know, so sunny all the time and very hot, but that's what vacations are for.

So there you go. So, all right. Well, our last segment to the show is words to the world, and this is where I give the guests the last word. Shannon, you can promote any idea that you wish. What are your words to the world?

something I said before, but think of expanding your skill in the realm of [00:54:00] leadership and you know, not always pursuing a career in management per se but being able to go beyond just your tactical skill sets and being able to lead a team or the individuals around you, I think is, is extremely valuable.

Very good. Well, I leave every guest with you've given me just enough to talk bad about you later.

fantastic, but I

do appreciate you being on this show. Shannon. Thank you so much. Did you be safe? Yeah.

Thanks so much. Appreciate it. Bye now.

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