



FINTECH ONE-ON-ONE PODCAST – MIKE DE VERE

Welcome to the Fintech One-on-One Podcast. This is Peter Renton, Chairman & Co-Founder of Fintech Nexus.

I've been doing these shows since 2013 which makes this the longest-running one-on-one interview show in all of fintech, thank you for joining me on this journey. If you like this podcast, you should check out our sister shows, PitchIt, the Fintech Startups Podcast with Todd Anderson and Fintech Coffee Break with Isabelle Castro or you can listen to everything we produce by subscribing to the Fintech Nexus podcast channel.

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Peter Renton: Today on the show I'm delighted to welcome Mike de Vere, he is the CEO of Zest AI. Now, Zest have been around for over a decade and they're one of the most experienced AI practitioners out there when it comes to underwriting models, so we obviously go into some depth about what they do and how they are able to create these models and what types of lenders they're working with. Let's face it, AI is hot right now, it's hot in all kinds of different areas and it's also hot in underwriting and Mike talks about that. We talk about automation, we obviously talk about bias, explainability and much more. It was a fascinating discussion; hope you enjoy the show.

Welcome to the podcast, Mike!

Mike de Vere: Hey, thanks, Peter, good to see you.

Peter: Good to see you. So, let's kick it off by giving the listeners a little bit of background about yourself. I know you've been at Zest for a little while but tell us some of the highlights of your career to date.

Mike: If you look across my career which is nearly three decades now, just had a big birthday, it's been around taking data and translating into insight. And so, early on in my career, you know, working at J.D. Power when geez, it was nearly a startup, and leading the effort around customer satisfaction and guest satisfaction, transitioning from that into actually having a wonderful startup that I chose to launch right during the Great Recession, that was a wonderful idea. And then from that over to the Harris Poll again, data into insight where we successfully exited that business, sold it over to Nielsen where I led their insights business for North America & Europe, and I find myself here as the CEO of Zest AI. I'm almost at my 5th anniversary coming up here in the fall.

Peter: Okay. So, what was the thing that first attracted you to take a job at Zest?

Mike: Well, it was a snappy name, for sure.



Peter: It is a snappy name. (both laugh)

Mike: I mean, who doesn't like Zest, a fresh perspective on credit, but, you know, really the mission spoke to me. You know, I've had a lot of years and being able to do something that's meaningful, guest satisfaction, customer satisfaction is important, TV ratings are important, understanding the pulse of America through the Harris Poll, that's important, but actually having a business where we're actually able to help businesses do well by doing good. That's the thing, I think, that excited me the most.

Peter: Right, right. And we did have your predecessor, Douglas Merrill, on the show back, oh boy, I think it was four years ago now, would love to kind of get a sense of how is it you describe Zest today?

Mike: Zest AI technology automates underwriting with more accurate and equitable lending insights so AI can be used in the entire customer journey. We're focusing in on the topic of underwriting, but we want to automate it so that a member experiences, they submit a loan and a second later I get a response and I understand why the loan has been dispositioned as a yes or a no.

At the same time, we need to make sure that those decisions are smart and that they're accurate and smart means you'll not only be able to expand access to more members, but it also means that you're also protecting the charge offs, so certainly in today's economic time that's a critical factor. Equitable is ensuring that simply every American deserves a fair shot and so is there a way to assess credit worthiness and ensure that all Americans are treated the same way.

Peter: And so, what types of lenders are you working with? I know you've been big in fintech for a while, but I know you've got some traditional lenders as well, tell us a little bit about who you work with.

Mike: Well, we actually cut our teeth on the largest, most regulated financial institutions on the planet so you look at Freddie Mac, Discover, Citi, things of that nature. I think the thing that we're most proud of is not only all the innovation and work that we've done with those larger financial institutions, but that we're able to make this automated underwriting enabled by AI accessible to even the smallest credit unions. I'm just back from a trip from Hawaii, I had an opportunity to meet with the CEO of Molokai Credit Union and they probably do 15 applications a month.

Peter: Wow, okay. (laughs)

Mike: That is, if you think about how Zest has positioned itself because we have been perfecting the use of AI for nearly a decade and a half, we have been able to automate and tool our technology such that it's truly accessible to those smaller financial institutions. It's important because they're competing with the big banks and the fintechs and things of that nature.

Peter: Right, right, got you. You guys have been doing AI for a long time, I remember Douglas talking about it ten years ago and what do you make of the current state of, particularly in the media, the conversations around AI. AI is everywhere, it's happened.....obviously, ChatGPT came out, but I just would love to get it from someone who has been living this day in, day out for years, what do you make of the current AI craze, shall we say?



Mike: Well, certainly great for business, I'll tell you that. And so, what was it, eight out of ten financial executives last year indicated that they wanted to leverage AI within their underwriting process and so it's very helpful. It certainly has created a lot of questions so the type of AI that we're doing here at Zest is it's not generative AI where it's not like the Terminator and you've got Skynet that's up and running on its own to try to assess credit. No, it's a moment in time where we're training on a set data set so it's fully explainable, so I think it's created some additional questions, but certainly has helped us from an interest and excitement perspective, very good for business.

Peter: Okay. Well, let's talk about explainable AI, you've mentioned a couple of times already and it was a really hot topic, you know, three or four years ago, it seems like people are talking about equitable AI when it comes to underwriting a lot now. I don't see the focus on explainable AI like I did a while ago, does that mean it's a solved problem or where are we at with explainable AI?

Mike: Well, I think from an academic perspective explaining a model and why it's making decisions is a doable, it's open source. The question is, can you operationalize that for underwriting and so what does that mean? That means that from a computational perspective, you need to be able to apply the approach to explainability and get reason codes back to a consumer or a customer in less than a second.

So, that's a big hurdle and I think that's where Zest initially set itself apart, but what we've also become aware in our next release for our explainability which will be announced, well it's being announced right now, that there are some blind spots in the open source explainability approach where consumers are not getting the right reason codes. It's really critical that we protect the end consumer, that's a part of who we are as an organization and so I'm really proud of the work that our data science team has done as well as our new patented approach to explaining a model such that those blind spots now have gone away.

Peter: I just want to dig into that just for a little bit. So, you're saying that there are some AI models out there that when they're declining someone, the reason they are saying it is actually incorrect or invalid, can you just sort of dig into that a little bit for us?

Mike: Yes, it would be almost not understandable to the end consumers. So, you'll get not only either a wrong explanation in some of these blind spots or at times, it just won't be understandable. The fact of the matter is, within the fintech space is we need to do better is, we need to have our eye on, you know, we're a business, we're a for-profit business, but at the same time, we have a responsibility to that end customer to fully understand and fully explain that model itself as well as give that end customer a reason that they can do something about, right. In the end, that's what it's about, I want to know, as an end customer, why I was declined for a loan so I can do something about it, so it needs to be understandable.

Peter: So, it sounds like your new product, which we'll be happy to link to it in the show notes, there have been blind spots in the past and now you're saying they have all been filled in? Is it a hundred percent now or what's the status?

Mike: Yeah, we've solved it.



Peter: Okay, that is great to hear.

Mike: For anybody who gets excited about news about calculus and statistics, this is exciting. (both laugh)

Peter: Excellent, excellent, okay. One thing that isn't solved though, I don't think, is bias in lending and I'm curious to see what you have to say about that because this is a hot topic still. Where are we at as an industry when it comes to removing bias from our AI models?

Mike: I'd say there's work to be done and so it starts with the data that we're using ensuring that it's actually representative of the US population, of the group that we're trying to build the model for. I think that the signals that go into the model, it takes a really strong compliance organization that just because the model wants to use a particular variable, is it compliant, is it safe and sound, is it fair to that end consumer?

But then, there's frankly technology and so we have a patented approach where we look for less discriminatory alternative models and imagine that there's this efficient frontier, Peter, between equitable or fairness on one side, accuracy on the other. We generate many alternative models and are in constant search for that model that is both more fair and more inclusive or, at least giving visibility for that financial institution so they can understand the trade-offs.

We will be releasing our new fair boost approach which we're really excited about that there's a few kinds of major steps forward and in that approach, in particular, we're seeing a lot more free trade-offs where you can be both more accurate as well as more equitable and inclusive. And so, that has yet to be announced here soon, but, you know, the data science and all our mathematicians here have all been really cracking at it, but in the end, it's this belief and it's part of our DNA as an organization that you have to be purposeful. You have to be purposeful about the people you're hiring all the way through to purposeful about the model you're building itself and there are organizations that don't have that same spirit.

Peter: Right, got you, got you, okay. I want to just talk about the product suite you guys have, maybe you can give us a bit of an overview, is this sort of an a la carte type offering that you have or is it like a comprehensive thing that goes in and kind of replaces something? What is it that you actually provide?

Mike: If we segment the market in three, there are three different offerings. So, our enterprise offering would be our most highly customized and tailored solution, that will tend to be the large banks, large financial institutions where we will work hand-in-hand with them, initially building a first pass model, but in the end actually handing over the reins to the Zest AI technology and giving them a platform where they can continue to build, document, do fair lending testing on their own so it's a bit of teaching them to fish and then they're off fishing themselves.

Our pro segment which constitutes probably the largest segment is where Zest is truly building the model directly for that end client, still tailored, but we have an automated process where we're able to build the model within days and just to give you context, I think the first model we built took us 14 months, now we're able to build the model and fully document it within days. That sets us apart from



any other fintech company out there. I think we're at 250 plus models in production, I don't know the company that even comes close to that.

And then, finally, the select offering is that long tail where we're developing these regional, very standardized models but it makes it accessible at a price point that a smaller credit union or financial institution could access.

Peter: Right, right, okay. So then, the 250 models you said you have in production, so someone comes along to you, what are you customizing exactly, do they say, because every one's going to have a slightly different credit box, I imagine, but what is it that you're customizing? I imagine you're obviously integrating with a variety of different loan management systems, what are the differences that your customers want that you need to customize?

Mike: Well, let's first start off with the geography. And so, there are some out there, certainly the big industries' scores are one-size-fits-all, it's eight national model and, you know, speaking of Hawaii, Pacific Islanders, the question I would have, are they fully representative in a national score and so would it not be better if you're talking about Hawaii, let's say the largest credit union on the island, if I had a model tailored to the Hawaiian islands and trained it off of that data set, so that's one part, the second is the business line. So, looking at secured versus unsecured, so looking at auto versus personal loans credit card, each of those will have different signals based off of the business line that they're trying to address and what their business objectives are.

And then finally, as you've touched a bit on, it goes to what they're trying to do as a business. And so, a lot of financial institutions we're approaching, in particular, today are unfortunately trying to shrink their credit box over to A) to protect themselves. It's kind of the easy to predict, but they're not serving their full customer base. And so their objective is to train a model such that they can safely move down the credit spectrum and serve their full member base during this difficult financial time.

Peter: So, can we just dig into that for a second? How are you helping these credit unions, or any kind of lender expand their credit box, what kinds of data, I guess, are you bringing into the models?

Mike: Well, so we stick with the FICA compliance so raw tradeline data from the bureaus is kind of our base ingredient to any model that we have and what we have discovered over time is that with our technology we're able to support a lender in being able to, just with that, lend down the credit spectrum. And so, if I give the opposite, example, we did some research on the Great Recession of 2007/2008, built a time machine, went back to 2006, built a machine learning model and decision through 2007 and 2008. And what we discovered is that if you're using the old approach, the industry score only approach, it's nearly a coin toss in the B, C and D credit tiers. But machine learning still is able to predict and understand who to give a loan to in those middle credit tiers so it's just smarter by consuming more credit data.

That doesn't mean that alternative data doesn't have a role to play, certainly it has a role to play with borrowers that have no file, but you have to be careful, you have to make sure that an alternative data is safe to use because we don't want to inadvertently add bias to the lending process by adding some of the wrong elements to alternative data.



Peter: Does that mean you do add elements of alternative data?

Mike: What we actually do is a waterfall approach where we will start with a raw tradeline data, build the primary model off of that and then if we get a no hit where they actually don't have a credit file, it waterfalls out to our alternative model.

Peter: Right, got you, got you, okay. You have an advantage because you've been around for so long, you said you had a lot of experience with producing models and AI's supposed to get better over time, how have your AI models improved?

Mike: Well, I think there's a few different ways. I think, you know, seeing your point around the efficiency with which we're able to deliver models I think is good from a commercialization perspective. But it has a secondary benefit from an end customer perspective because we're able to adapt quickly to changes in the marketplace and so we build smart models. Our first model was also smart, the difference is that if President Biden decides to send out \$2,000 checks to America, how quickly can a fintech respond to that or how quickly could the largest financial institution that's so proud of the fact that they have their own data science organization and they're doing all their own models, how quickly can they adapt?

I don't know that I've run into a financial institution that's already adjusted for the changing economy. And so here at Zest, we are everyday monitoring our models and understanding potential feature address and when there are changes in the economy or changes in the marketplace, we're able to adopt quickly. And so, for me, that's probably the greatest innovation beyond the really smart models, is the ability to be agile within the marketplace.

Peter: Let's go back over the last, you know, three plus years here because it hasn't been a normal economy, shall we say, since 2019 and I imagine for someone running an underwriting model it can be a little frustrating. We're now in a very different situation now than we were a year ago, and it was very different the year before that, like you said you do this quickly when you see changes out there, what are you doing exactly and how quickly are we talking?

Mike: So, we can re-deploy a model overnight and so if we sit down with a credit risk team and understand that this alternative model is more accurate, more stable, given the current environment, we can re-deploy overnight and that just helps our customers stay ahead of what's next from an economy perspective.

Peter: So then, can you just explain, someone's listening to this and interested in what you're talking about, can you explain what's involved from someone who may be.....they may have to run something off the shelf, they might have a, you know, a FICO model or whatever, what's involved in implementing Zest into a lender?

Mike: It's about an hour.

Peter: (laughs)



Mike: In all seriousness, Peter, sitting down with the lending team and understanding much in the same way I called out the differences on how we tailor and customize a model, it's asking those questions. What are the communities that you're trying to serve, what are your aspirations from a business perspective as far as the credit tiers that you'd like to serve versus the ones you're serving today, what are the business lines, what's the value of a good loan versus a bad loan, what are your charge offs, so it's a lot of background information.

Two days later we come back with a tailored model for that customer to review, notice there's no contract, notice there's no big due diligence. We actually build the model at no cost because what we have found in particular over the last two years that's given us this great momentum is by focusing on automation and being a scale up and not a startup because as a scale up now I'm able to sit down with a chief lending officer and say, you know, over the last 18 months when you were using that industry score, here's how you performed.

If you have been using this variable machine learning model over the last 18 months, here's what your approval rates would have looked like, here's what your charge offs would have looked like, here's what your yield would have looked like and oh, by the way, let's not lose the efficiency gain because if you're able to increase your automation from 20% all the way up to 80% imagine the resource efficiency you'll have in your underwriter and fulfillment organization. So, it becomes a very easy engagement for our customer to understand if AI is right for them, we take the guess work out.

Peter: What is the thing you have to overcome then because it seems like, the way you describe it, if they're running something that is off-the-shelf it seems like a no brainer, but I imagine you don't have every single lender in the country so what's the push back you get?

Mike: Give us till the end of the year (laughs), but no, no. So, I think the thing that we run into, you know, our conversion rate is exceptional, I've not worked at a company with a conversion rate like that. Once you have a model in hand and a chief lending officer, a CEO who's looking at a 5 to 10X return on their first year investment, it's a pretty compelling business case.

The challenge is there's also five other business cases that are out there that may have been planned out the prior year and so, oftentimes, it is a prioritization effort, it's not a no, it's a win, I would say, I'd say there's also some fear of change. Even some of the largest financial institutions we will work with, even though the number's say it, but they have been doing it the same way for 20 years so getting them off of that and admitting that there may be a better way using a math that was likely created and/or taught decades after they were out of school is a bit scary for some so there's the human component.

Peter: Right, right. So, I want to talk about automation for a second. You mentioned it a couple of times, is 100% automation possible, is that what people want, or they just want to increase on what they're currently doing and how does it actually work?

Mike: So, let me unpack how it works and then we'll get to the aspiration. So, once you have this smart and inclusive AI underwriting model, the question is now, how do I operationalize it? Most lenders will have 20 to 30 credit policies that they have traditionally overlaid on top of an industry



score, that's kind of like the duct tape and chewing gum approach of like, how do I make this score actually work and it's all the credit policy that they overlay.

What we then go to do because we're really a Technology-as-a-Service company, this is where the service piece comes in as our client success team is working with them on their policies to understand. Let's for example, say they've got 25 policies, usually about 15 of those policies, like debt to income, for example, those are signals that we already included in the model so you can scrap those. And then we'll find that there's oh, five or ten that actually have no signal and when you ask the chief lending officer, why do you have that policy, it's usually, well, we had it in place, the guy before me for the last 20 years so we've often thought to have it into place.

And so, those then get cleared off and then, what you end up with this is this optimized policy and so fewer things. Once the AI has decisioned and come up with a yes or a no decision on the loan, there are fewer things that are getting kicked out or getting kicked up for manual review because there's fewer policies that are in there. When we look at most of our customers, as I mentioned earlier, it's 20/25% auto decisioning, the goal that our customers is to reach 80, 100% is possible, certainly the likes of a credit card so we have a number of customers who are at 100%. And so, why is that critical? It's critical because they're out there competing with big fintechs and big banks who have significant resources. And so how do they set themselves apart? It's through that speed and agility within that marketplace.

Peter: Right, right. But then going back to the Molokai Credit Union that's doing 15 loans a month, is automation a really critical thing if you're only doing 15, is manual review acceptable?

Mike: Well, the issue is the CEO probably would like to not do any reviews themselves of loans and so they probably'd like to get on to their day job and so automation is pretty important even at 15 loans. I think that's probably a really extreme case, but across-the-board even for a small credit union or a financial institution. Oftentimes, the chief lending officer is also doing some underwriting and so the ability to free them up so they can work on more policy and strategy issues is a greater value for the end member.

Peter: Right, got you, got you, okay. So, I want to talk about Washington and the CFPB and the legislators looking into AI and its task force I think in the House Financial Services Committee, how are you engaging with the lawmakers and regulators in Washington?

Mike: We're engaged directly with each of the regulatory bodies, whether you're talking about from a US perspective, but even also at a state level, that's also critical. Much of the ways that we're engaging is sharing and educating as far as what we're doing because there is a right way to leverage AI, there's also a wrong way and so educating them on both, I think, has been critical for us. We view smart regulations as critical because if we want to do good in society, we also need to protect the end consumer and that's what the CFPB and the other regulatory bodies are out there doing.

Peter: Right. And so, as far as regulating AI, how would you do that? When you're having these conversations what is it that they....is it really around bias, is that the primary thing they're focused on?



Mike: Well, protect the consumer, make sure you give them the right reason, explain why they got the loan or why they didn't get the loan. Bias is certainly an important topic, I think, what was it, three/four weeks ago, the CFPB was out talking about the need for when one builds the model as well as on an annual basis, you need to be looking for a less discriminatory alternative model.

And so, we're very excited about that guidance coming out and the fact that they will be formalizing that, our understanding is they'll be formalizing that shortly because that certainly plays to our strong suit, that's core of what we do. Every model we put out in production, we are looking for that less discriminatory alternative model and there's not a lot of fintech companies that can say that.

Peter: What's next for you guys, what are you working on that you're excited about?

Mike: Beyond kind of the geeky math stuff that I was talking about earlier, it's really around that idea of automation. And so, if we think of the customer journey, there's various friction points and so if we think on the way in there's everything from ID verification, fraud, income verification that tends to be friction points for that lender. And so, is there a way for us to leverage AI to support the lender and eliminate those manual steps that oftentimes happen?

The example, just from a meeting I had a week before last, was a large financial institution out here on the West Coast, said probably the longest part of their underwriting process is just getting the name right, there's hyphenated names in California or long names that don't conform to the fields. And so, just being able to make sure you have the right person, that's a really great process where we can use AI to automate that and so supporting them in that, so it's both up funnel but it's also down the customer journey.

Once you have actually a loan, and now you have a loan portfolio, how do you test the resiliency of your loan portfolio itself? And so, if you used AI to underwrite it, you probably should use AI to actually assess the resilience of your credit portfolio over time and so that's something that we'll be launching here in the next geez, four weeks or so, but beyond that, there's also the question of collections. Once we've determined that someone needs to shift over into that space, then we get into revenue recovery, what's the best way to do that? We've got a very, very aggressive product roadmap over the next 12 to 18 months, you know, that's really where our Series F came in, is we're doubling down on this automation.

Peter: Right. Well, we'll have to leave it there, Mike, great to chat with you, lots of good work done, there's still lots to do, it seems. So, thanks so much for coming on the show.

Mike: Good to see you.

Peter: I hope you enjoyed the show, thank you so much for listening. Please go ahead and give the show a review on the podcast platform of your choice and go tell your friends and colleagues about it.

Anyway, on that note, I will sign off. I very much appreciate you listening and I will catch you next time. Bye.

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