EPISODE 234: MATT FIORDALISO – BRIDGING MACHINE LEARNING & FINANCE

Matt Fiordaliso

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Female Voice

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Ken White

Welcome to Leadership & Business, the podcast that brings you the latest and best thinking from today's business leaders from across the world. Sharing strategies, information, and insight that help you become a more effective leader, communicator, and professional. I'm your host, Ken White. Thanks for listening. It seems wherever you go, working professionals and companies are talking and strategizing about artificial intelligence, machine learning, ChatGPT, and many of those conversations have taken place fairly recently. But before all the buzz, way back in 2016, AI Spark began researching ways machine learning could intersect with finance. Now, the organization uses a technology and people approach for credit risk analysis. Matt Fiordaliso is a partner at AI Spark. He's a William & Mary graduate who serves on the board of the Boehly Center for Excellence and Finance at the William & Mary School of Business. On a recent visit to campus, he joined us to discuss AI Spark, how the importance of data has grown greatly, and the ways technology technology is a job creator. Here's our conversation with Matt Fiordaliso.

Ken White

Well, Matt, great to have you here and great to meet you. It's wonderful to welcome you back to your alma mater. Welcome.

Matt Fiordaliso

Thanks. It's great to be back.

Ken White

Yeah.

Matt Fiordaliso

Appreciate you doing this.

Ken White

The last time you were here was how long ago?

Matt Fiordaliso

It was in March for the Women's Stock Pitch.

Ken White

Yes. Yeah. Fantastic. Yeah. Well, it's wonderful to have you back. We actually had a number of panelists and judges from the Women's Stock Pitch competition on the podcast. So, yeah, that's always a terrific event, but great to have you here. Tell us about AI Spark. What is it? What's the 50,000 feet?

Matt Fiordaliso

We always wanted to come up with a way to bridge the finance with the machine learning. We started back right around COVID, and then we got some funding in 2020. From there, it's more just bringing an unbiased view to an area of the market that was traditionally been heavily influenced by rating agencies. That was the mission. Then, from there, it spawned into something else where we're now able to show better what the true return profile is for security using an unbiased view.

Ken White

What hit you about this intersection of AI and finance? Was there a moment? Was there a time? How did you get there?

Matt Fiordaliso

When leaving sales and trading, going to a company called Market, it was very unheard of. It made its name by building the ABX and other things brought to light during the big short. But back then, nobody really cared about data. Nobody really understood what you could do with it. Market's whole mission was taking data that was potential, we'll call it, uncleansed, cleaning it, and giving it back to us in a structured format that banks and other institutions could use to better their own processes. Then, from there, it's like, what can you do better? Then AI Spark, we're like, well, machines can actually do it better than people. They can take unstructured data, look at it, and process it faster, so long as you have the same human component.

Ken White

Yeah, let's talk about that. Where is that connection with the human component and the machine learning piece?

Matt Fiordaliso

It's critical. Certain areas of finance, it's hard to trust a machine. I think that's tough to buy in for certain institutions. But when you know that there's a subject matter expertise behind it saying, Hey, yes, that's reasonable, or these are the components, and then you leverage that learning within the machine to produce that derived data, it can be incredibly powerful.

Ken White

That's interesting because I think when many people, many people I talk to hear about AI or machine learning, they say, Well, that's going to take a job away, and you're not finding that at all.

Matt Fiordaliso

No. I think traditionally, what takes jobs away is people not changing. If you look historically, technology is a net job producer. We wouldn't have this microphone if it wasn't for technology. We wouldn't have a computer programmer. We wouldn't have influencers if it wasn't for social media. Social media is a giant technological sector. If you go back to 50,000 feet, any technological influence in this century has net created jobs. The ones that go away are people not willing to adapt it.

Ken White

Which is something we hear quite often. When we say that, what's your advice to people, just working professionals in general, when they say, I don't even know where to start with the technology? What it is that should I be learning to make sure I can adapt and really thrive using technology?

Matt Fiordaliso

It's just being open to it. I think when we present certain solutions to people, we're not looking to replace them. We're looking to add on. We want to basically give somebody the opportunity for an unbiased credit analyst next to them at a much better price to aid in their overall workflow.

Ken White

Let's go back to the definition of machine learning and AI. What are the similarities? What are the differences?

Matt Fiordaliso

I think right now, Everybody ChatGPT, right? Lots of large language processes. What we built is actually the neural side of it, and I don't think that side of AI gets a lot of press. The stuff that you see on Netflix when it shows you, Hey, this is the movie that you should watch. If you don't like it, you're like, Oh, well, Netflix failed, right? But Netflix is continuing to learn to try to give you a better option for the next time. That's language processing. What we've done is created a neural network. It's all algorithms that learned on itself. The more information it gets, it's continuing to produce results. Netflix is doing one side of it, like recommendation processing. We're looking at the other side of it, like a neural network is actually getting smarter and smarter continually.

Ken White

Where do you see things going in the future?

Matt Fiordaliso

It's going to go more on the neural side, for sure, because they're continuing to get smarter.

Ken White

How do you label yourself? Are you an entrepreneur? Are you a marketer, a business professional?

Matt Fiordaliso

That's a great question. I wear as many hats as I possibly can to get the job done. I think when starting off in market, we didn't have a giant departments to do certain things. You had to learn different roles. I'm happy to read a contract. I'm happy to put together a marketing piece. That was the beauty of working a smaller fund. I think that's a great message for kids. Whatever job that you do when these big corporations come to campus, most likely, they're not going to be working for that company in 5-10 years. You can do it with only 4 or 5 people and enjoy what you're doing.

Ken White

Where did you learn to lead?

Matt Fiordaliso

I'm continuing to learn to lead. Sometimes, I've had a hundred people under me, and now I only have one. But having that drive to just what needs to get done, how best to do it, that's really all it takes, and to enjoy it.

Ken White

How do you approach interactions with those who report to you?

Matt Fiordaliso

Just being as open as possible. Trust exists, and that's one of the components of our company. Our algorithm is called Tara, transparent, autonomous risk algorithm. We want to have that trust instilled with people we work with, people we license it to, and that's a key mission of us.

Ken White

Yeah, it's pretty evident when you look at the website, the word transparent or transparency is there. Why is that an important driver for you?

Matt Fiordaliso

Well, there's two foundations within a neural network. You want stability, and you want accuracy. In order to build trust with our clients, we need to show that empirically. Let's take this example. Say we started introducing AI to produce prison sentences. Might be a controversial thing, right? This week, it's like if you do XYZ crime, you're going to get 7.5 years in jail. Then next week, the same exact thing: you're going to get 7.7 years in jail. To any other person, look at that. Even from a materiality standpoint within an audit agency, they're like, that's not material. But that 60 or 90 days is 60 or 90 days of somebody's life. That's important, and they will care about that. We need to make sure that we are stable, and that's one of the components of our system. It's like, produce the results, have stability, and just show it out. To the earlier point around having a subject matter person coming in because you want someone to opine, say, Yeah, 7.7, 7.5 are two very different things from a prison sentence. They're not just numbers. That's where you think you continually have a human element within any machine learning platform.

Ken White

We'll continue our discussion with Matt Fiordaliso in just a minute. Our podcast is brought to you by the William & Mary School of Business. The Financial Times, Bloomberg Business Week, Princeton Review, and US News & World Report have all named the William & Mary MBA program one of the best in the US and the world. If you're thinking about pursuing an MBA, consider one that has world-class faculty, unparalleled student support, and a brand that's highly respected. The William & Mary MBA. Reach out to our admissions team to learn which of our four MBA programs best fits you: the full-time, the part-time, the online, and the executive MBA. Check out the MBA program at William & Mary at wm.edu. Now, back to our conversation with Matt Fiordaliso, partner at AI Spark.

Ken White

What skills does that human need to possess now for you, for example, because they're going in to talk with a client with the numbers? What are you looking for?

Matt Fiordaliso

You're increasingly coming across individuals who are very familiar with pulling up a DOS prompt and looking through and what is this code actually saying. Statistically, one of your earlier podcasts used the best line ever. Correlation does not mean causality. Just because we have a great R^2 doesn't mean that we're just able to show what's going into it. You're going to have to have those conversations with people over and over again. The people who are making decisions at some of these firms, they have resources dedicated to them on machine learning. Their mantra is now, How do I adopt AI and machine learning into my institution? That's my charge. How do I get it done? Being able to speak to them. R^2, it could be a normal speak going forward.

Ken White

Yeah. Man, the communication skills are critical then.

Matt Fiordaliso

Very much so.

Ken White

For that particular person interacting with the organization. Where do you see AI Spark going? What's the future hold?

Matt Fiordaliso

I think partnerships are key. Working with large data providers, working with other institutions, whoever has a platform in order to get our products out. Because once you're integrated with other platforms, real estate is key. I don't mean real estate from a building perspective. I mean real estate on someone's screen. People fight over Instagram and TikTok, right? You can't have both at the same time. If you want to get on someone's screen, you want to be integrated with a key partner in that business.

Ken White

But that's such a great point. Does it go as far as what it looks like in graphics and design?

Matt Fiordaliso

It does. Yeah. Any of the information we want to make available through any terminal access out there.

Ken White

Let's go back to you and your career. I mean, this is a huge stake in the organization. What drives you to do that?

Matt Fiordaliso

Every time we come across somebody who's able to really smile and say, Wow, this makes my life much easier; that's what keeps me going.

Ken White

That's your driver?

Matt Fiordaliso

Yeah. And knowing that what we produced makes their job so much easier.

Ken White

Moving forward, how do you see yourself growing? What's next?

Matt Fiordaliso

Really just continue to work with this. We're having a lot of success with it. We see every time that somebody adopts the technology, we come up with a new way to enhance it, and it usually benefits somebody else.

Ken White

Are you spending more time on the technology side?

Matt Fiordaliso

Yeah. Lots of system design, lots of new areas in the market we want to focus on, different asset classes. We're starting commercial real estate, moving on to syndicated loans, more leveraged loans, and then ultimately residential.

Ken White

Why those areas?

Matt Fiordaliso

Because they're key for the part of the market we focus on, which is a securitized finance.

Ken White

The data are there.

Matt Fiordaliso

That is rough, and we need to work with it to help others work with it.

Ken White

Do you see more competitors coming on? Is there something that you do that is very different in the market?

Matt Fiordaliso

It's an interesting part of the market because it takes so long. We were around way before ChatGPT.

Ken White

Yeah.

Matt Fiordaliso

That's the name of the company, AI Spark. Now, if you look at what's going on in that, people are dedicating a lot of resources within themselves to build this stuff out. To do that, it's great. However, the amount of backtesting that goes into building a neural network is years. It's going to be a while before lots of competitors approach. Because again, the neural network versus the language processing that you're seeing with a ChatGPT or the Netflix recommendation is it's a very different type of AI.

Ken White

For people who want to learn more about AI, all of it, ChatGPT, machine learning, because so many working professionals tell me, I don't know where to go. I don't even know where to start. You mentioned earlier, just be open to it. But anything in particular advice you have just for the average working professional who's a little overwhelmed by it and doesn't quite know where to go?

Matt Fiordaliso

Just knowing that it's based on your information sometimes. Say, if something's not producing results for you, what can you do to better it? And always have that in the back of your mind.

Ken White

Is there a particular area people should be looking at? Should they be playing with ChatGPT or certain things?

Matt Fiordaliso

Absolutely. Even ChatGPT has different levels of subscription or what it can do for you. But always know that what you're putting into it is ultimately going to help on the output side.

Ken White

As someone who's done what you've done and you've got such an interesting career and such an interesting business, what kind of advice do you have when you interact with younger professionals or maybe some students to get off on the right foot?

Matt Fiordaliso

Just do as many cross-disciplinary activities as you possibly can. I think some of the work that's being done now, Professor Agnew and Anthony have done a great job of bridging computer science into the business school. Cross-disciplinary is going to be key. You're going to work on teams with people who are really good at coding in life going forward. You're going to work with people who are not. You have to figure out how to do that. I see that change in the business school now where it's like they're bringing in a lot more, whether it's economics, comp-sci, all coming. You don't have to be your own silo.

Ken White

Sometimes, that's a tough sell to a younger professional because they say, I want to be an expert in this and trying to explain to them, Okay, that's all well and good, but being pretty good across the board, it was going to tee you up more successfully. What would you tell somebody who's saying, no, I'd rather take a deep dive into one particular area?

Matt Fiordaliso

Then they'd better be very good at it.

Ken White

That's our conversation with Matt Fiordaliso. That's it for this episode of Leadership & Business. Our podcast is brought to you by the William & Mary School of Business, home of the MBA program, offered in four formats: the full-time, the part-time, the online, and the executive. Check out the William & Mary MBA program at wm.edu. Thanks to our guest, Matt Fiordaliso, and thanks to you for joining us. I'm Ken White, wishing you a safe, happy, and productive week ahead.

Female Voice

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