

# Ep.2.14 - Anthony Garofali\_update

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## SPEAKERS

Announcer, Ed Clemente, Anthony Garofali

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**A** Announcer 00:02

Welcome to the Michigan opportunity, an economic development podcast featuring candid conversations with business leaders across Michigan. You'll hear firsthand accounts from Michigan business leaders and innovators about how the state is driving job growth and business investment, supporting a thriving entrepreneurial ecosystem, building vibrant communities and helping to attract and retain one of the most diverse and significant workforces in the nation.

**E** Ed Clemente 00:28

Hello, my name is Ed Clemente, I'm your host today. And we're fortunate, I know he's got down Anthony, but he gave me permission to call him Tony Garofali, and I want to welcome you to the show. Thanks for being on the show today, Tony.

**A** Anthony Garofali 00:42

Thanks for having me Ed, happy to be here.

**E** Ed Clemente 00:44

And you're the, let me get this correct, you're the Country Managing Director for Altair. Correct?

**A** Anthony Garofali 00:50

Yes, that's correct.



E

Ed Clemente 00:52

And you're based, your headquarters are in Troy, Michigan.

A

Anthony Garofali 00:55

We've been in Troy for several decades and continues to be you know, our world headquarters there.

E

Ed Clemente 01:02

Yeah, we're gonna get into that a little bit because, you know, listeners could hear the word world mentioned. But we'll get into that a little bit. But when Altair, and even for me, who knows we have a mutual friend, Dave Simon, who I used to work with, but I didn't even know what Altair did always even then. So why don't you tell people if you go to an event or something, what do you kind of tell him what Altair does? Because it's a pretty complex place, I think.

A

Anthony Garofali 01:33

Yeah, so first off, you know, Altair is a global technology company and what we do is we really leverage the combination of virtual simulation, high performance computing, and artificial intelligence. And that really helps our customers drive efficiencies into their business, and allows them to make better decisions, you know. So I know that's kind of a mouthful, and you got a lot of listeners that come from a variety of backgrounds. So if you don't mind, sometimes this is best explained by going through just a real quick example, if I could do that?

E

Ed Clemente 02:09

Yeah, you want to break down those three things?

A

Anthony Garofali 02:11

Yea, so I'll give you an example. We work with a company that was an engine, manufacturer, and supplier. And so if you can imagine they would have these these engines sitting in a test lab, and they would have all sorts of instrumentation. And they'd be running various use cases to see, you know, hey, if I put this input on the engine, how does it go on behave? And they were collecting not only that, that design and that engine, but historically, through all their designs, they have all this data that they're compiling, terabytes of information. So we partnered with them and what we were able to do is take all that historical data, process it and create a machine learning algorithm. That machine learning algorithm did really three things for that business. The first thing it did is it helped with anomaly detection. So any future physical tests they ran, they could see if the engine was kind of operating in its normal conditions, and if there was any risk of a catastrophic failure, so that they could shut the test down. That saves the engine, that saves all their testing equipment that would go along with it plus the downtime for the lab, the other thing they could do is they could put those engines

back into the vehicle, run them in the real world, and see how the engine is behaving in the real world, and what sort of test conditions that might mean for the lab so that they can improve their test conditions to make them more real world like. And the third thing it does, because in any design cycle, you only have so much time and money, you could actually produce new virtual tests. So if they didn't have the time to have different inputs, they could kind of change those knobs and those dials a little bit. And then you could predict the output with that machine learning algorithm. So that's really kind of the AI portion of that.

E

Ed Clemente 04:05

Is that, let me ask one question about that, is that modeling kind of at the end there?

A

Anthony Garofali 04:10

Yeah, yeah, it is a it's a certain type of models, it's based off of data and analytics. And then you have physical physics-based models that we also have software that produces that as well. So if you wanted to look at, you know, the heat transfer going on the engine, optimize the structural mass, look at noise, vibration, and harshness, criterias. And just really a whole myriad of physics that you have in designing those components, we do that as well. And really the high performance computing is really the horsepower of the engine that all these simulations kind of run on in the background.

E

Ed Clemente 04:48

Yeah, I cut you off number two, sorry. [Number two, where?] Oh, I'm sorry. I thought you had a second one. You were going to, was that all three together then?

A

Anthony Garofali 04:57

Yeah, yeah. So you have the the physics-based simulation, [I see what you saying' the artificial intelligence was the use case. And then high-performance computing is kind of the the horsepower of the engine that runs all these calculations on the background.

E

Ed Clemente 05:11

So you did mention, sort of, we should also clarify who you are you. You're an actual engineer, right? You got a degree from Wayne State, is that correct?

A

Anthony Garofali 05:25

Yeah, I went to Wayne State for both my bachelor's and my master's degree. So my Bachelor's is in mechanical engineering and a master's in solid mechanics.

E

Ed Clemente 05:38

And just for people who out there might want to be an engineer. I kind of don't know what solid mechanics means.

A

Anthony Garofali 05:45

Yeah, it's really structural engineering. You know, it's really closely tied to the mechanical aspects with materials and things of that nature.

E

Ed Clemente 05:56

Alright, and also, let's get a little bit into your title. You are country, what does that mean? What is that? I don't know where, I know your your headquarters are in Troy, but you guys are pretty widely spread around the globe, right?

A

Anthony Garofali 06:12

Yeah, our headquarters are in Troy. We have 86 offices in 25 different countries. So we're definitely a global company, our global company, for that matter. And then we really have our business really split up into the three major global zones. So you have the Americas, basically North and South America. The EMEA, which is Europe and Asia Pacific. The Americas is split up between several country managers, there's there's five of us, and just due to the sheer size of the US, it's myself and a counterpart of mine that kind of split the US I kind of run the eastern half of the US and my counterpart, Zule runs the western half of the U.S.

E

Ed Clemente 06:57

So does that mean you got to travel a lot?

A

Anthony Garofali 07:01

Uh, well, you know, it's interesting, you know, we're doing this kind of virtual podcast here and the whole transition to virtual workspaces has been something that Altair has pivoted to very well. But but certainly there is travel, I think face to face does bring a certain element that is important for business and, you know, developing relationships with our customers and really understanding their problems and challenges. So there's some travel involved, but I'm not I'm not living out of a suitcase, either.

E

Ed Clemente 07:35

Yeah. And I imagine every once awhile, it helps to have the boots on the ground, like you said, with a potential client or an existing client. Right?

A

Anthony Garofali 07:43

Yeah, absolutely. We got a team of direct account managers and application engineers that are kind of helping run that eastern half of the business there.

E

Ed Clemente 07:52

It can you just quickly jump into some of the, because I was on one of your I don't know, it was like a virtual, like, I don't know if it's the annual meeting or what, but I was just amazed by how many different industries you're in too. It's not just automotive, right?

A

Anthony Garofali 08:11

No, no, it's certainly not automotive. You know, in Michigan, obviously, it's it's very automotive heavy, here. that's a big market for us in Michigan. But company wide, we deal in architecture, aerospace, electronics, manufacturing, you know, life sciences, consumer goods. We do a lot of work with the government entity and financial services as well.

E

Ed Clemente 08:37

Yeah, I mean, that's such a like, that's why it's hard to tell people right away what Altair does sometimes. But I was more impressed with a lot of the train, you know, in the aerospace. I saw those in your that one thing I was. And I think people one of the reasons I really thought it would be great to have you on the show today is that also, you know, I don't think people realize that it's like, right in our backyard. It's a global corporation. And because it has sort of a unique name, I don't even know where Altair comes from. Was that the owners last name or something?

A

Anthony Garofali 09:10

No, it's, the name is an interesting story. I've heard a couple of rumors. [We like rumors on this show.] So I don't know if it's exactly correct. But I know some of the part of this true. So I don't know exactly how they landed perfectly on the Altair name. I know it kind of comes there's a star that is Altair as well. But our CEO definitely wanted what, the company's name, whatever it was going to be, to begin with the letter A. And I think that was back then, you know, when you went to a trade show, they print out the list of companies that would be there. So he wanted an A name, so we'd be right there at the top of the list. There and somewhere along the way, they kind of landed on Altair.

E

Ed Clemente 09:53

Why don't you mention the CEO? He's still the CEO?

A

**Anthony Garofali 09:57**

Yeah, he's our CEO and founder, Jim Scapa. You know, he's still very active in the company. And it's been a pleasure to work with. You know, he's really built an amazing culture in Altair, that, you know, you don't feel like you're a big corporation, even though it's a big company. We have over 3000 employees, but it certainly has a family feel and I think that comes from, from the roots where we started. And it's just been an amazing place to be and have a career.

E

**Ed Clemente 10:31**

More of a personal note, I should mention that we discovered something by accident that your grandmother worked at my family's restaurant for quite a while.

A

**Anthony Garofali 10:43**

Yeah, yeah. So that that was, that was a very pleasant surprise. Because you know, when you mentioned Dave Simon, when he kind of asked me to join the podcast, he said, Ed Clemente, and I was just like, you know, the name rings a bell for me. And I was thinking, I was like, there's no way, it would be too weird of a coincidence, for it to be true. And then once we got talking and kind of going back through the old stories, there a little bit. Yeah, it's just amazing, my grandmother worked at Clemente's Restaurant for 30 years there. You know, my dad says, Hey, tell Eddie, I said hello.

E

**Ed Clemente 11:22**

At least he's not calling me Little Eddie, I still get that from my relatives, my dad was Big Eddie. The but that's yeah, she was wonderful too. And her English was actually pretty good. More so than the other Anna. I remember, because a lot of our cooks didn't know any English. And it was kind of a challenge. I think Anna, your grandma, used to interpret a lot for some of the other staff for us back then. But that's great. No, no, no and I remember your dad with her. I don't think your grandma ever drove right?

A

**Anthony Garofali 11:53**

Um, you know, I'm not 100% sure. She passed when I was fairly young, you know, I was five, six years old. Well, I have some fleeting memories of those days a little bit. I remember her making pasta fazool all the time and my mom, sitting me up, you know, she put me on the chair so I could reach the phone and call, call and ask for my favorite dish.

A

**Announcer 12:19**

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E

Ed Clemente 12:34

How like in Michigan's presence you said automotive, but I think you do more than that just here in the state. Right? I know you're automotive heavy. But like, I know you're in California. I know, you're like what are some of the divisions at least you think that would be of interest? I think for just people in the state that either would be interested in what your business does, or future stakeholders or partners, you might have those kinds of?

A

Anthony Garofali 12:58

Yeah, well, let me tell you a little bit maybe about like, you know, how do we help companies? You know, when I when I look at, like the impact that Altair has, I really see it kind of unfolding really in kind of three areas. One, we help companies increase their revenue. The second is we help them cut costs. And the third is we help them mitigate risks. So we help them increase revenue by shortening their design cycles, by leveraging that simulation. And then that allows them to get to market faster. You know, they cut costs by reducing the physical testing. And then they're able to explore more of the designs, more possibilities than what they could do through traditional methods of kind of build, test and break. And what that ultimately leads to is a more robust design that goes out into the market. And then that has better customer experience, less warranty claims, and they're managing their risk as they put a product out into the field. You know, the other thing that is really interesting is, you hear a lot of companies talking about their sustainability initiatives. And one of the things that Altair has been fantastic in is our lightweighting technology. I mean, we are the global leader in lightweighting. And we have helped customers in all industries, cut, you know, 1000s and 1000s of pounds out of their products, which which ultimately just reduces their overall CO2 footprint. So we're kind of doing our part, you know, vicariously through our customers.

E

Ed Clemente 14:39

Do you, I don't know if proprietary wise you could mention, do you have any clients or those sort of proprietary?

A

Anthony Garofali 14:48

Yeah, I did try to work with our marketing team, a lot of customer lists and stuff, it gets a little touchy there.

E

Ed Clemente 14:55

I figured, but I just think that you could safely say that you're actually involved in a lot of companies in Michigan too, at least in the automotive sector.

A

Anthony Garofali 15:05

Yeah, Michigan, is it's really where our roots are and some of our oldest and largest customers

reside in Michigan. Absolutely. And that's, that's part of the reason we're here. And it's kind of a great, great place for us to be headquartered.

E

Ed Clemente 15:21

And is there, you did mention a little bit of a global, but is there anything that you see sort of as sort of trends or things that you see, you know, going forward, not just domestically, but internationally?

A

Anthony Garofali 15:40

Yeah, I see really three big trends coming out into the market. One is this kind of idea of smart connected products, you know, leveraging digital twin, which is a forefront of what Altair is doing. And leveraging data throughout that engineering product or process. You know, I just read an article, it was like last week, and it said, you know, companies that are adapting these digital twin models and putting that into their design cycle, they're seeing about a 10% increase in revenue, about a 50% reduction in lead time to market and about a 25% improvement in product quality. And with those sort of numbers, you know, that's, that's something that is going to be tough for any business to really ignore. You also start seeing some of the the user experience change, you know, so we're no longer just buying a product, it's how we interact with it. And that kind of plays along with the data, you know, they're adding and services tied through subscription based models. And you see this in all sorts of industries, everything from, you know, the Sleep Number bed that you order to workout equipment, to your Ring doorbells, all of that sort of, you know, business models that brings up new revenue streams, and you no longer just buy one widget, you're you're buying an experience of how you interact with that product. So that's one trend that I see. The other, as I mentioned, is really around sustainability. And not just, you know, CO2 emissions, but you see a lot of things with new materials and advanced manufacturing. So I've seen companies using, you know, plant-based fiber materials for fabrics and other components as they build their products. And then those materials are actually helping them change their manufacturing process. So another kind of side shoot example here is, you know, this is something everybody interacts with almost daily, is you think of it like your plastic Coke bottles or your Gatorade bottles, we were working with one company, their process was, you'd have these plastic tubes, they would put all those plastic tubes, you know, they go through the process, cut them to size, put them on a big container, ship them to another facility, heat them up, blow them in the shape, package them back up again, ship them to another facility, where they fill them with the Coke or Sprite or Gatorade, or whatever it is. We actually worked with their material scientists to create a new plastic material that didn't require you to heat the plastic to mold it. And what that allowed them to do was fill the liquid and mold the bottle into the shape that it needed to be in one single step. So the material actually became an enabler for them to kind of revolutionize their manufacturing process. And you think of all that waste of shipping and packing and all the back and forth. I mean, it's just, it's just really amazing. So it's kind of advanced manufacturing with materials, I think is going to be at the forefront as people look at sustainability and moving forward.

E

Ed Clemente 18:57

That's about 30 questions for me, but give us the third one

That's about 30 questions for me, but give us the third one.

A

Anthony Garofali 18:59

Yeah, so and the other one is electrification. You know, it's really big obviously, in Michigan. You've seen GM announce, you know, all electric by 2035. Ford has announced their Blue Oval City, where they're doing this mega city, I think it's going to be down in Kentucky and Tennessee, where they're going to build not only F150 trucks, but build the battery packs and assemblies and everything for their electric vehicles all in one shot. And then you can see all the new players that are kind of coming into the market. So Tesla has been around for a while, but you got companies like Canoo and Via Motors and Lordstown, Rivian and Lucid Motors. ELSM is electric, you know, they do a Class A one vehicles. And then you have Our Next Energy, which is a battery company which is supposed to really, their technology is supposed to really be extending the range that you get out of the battery too. So it's just really a big influx of companies and investments from existing companies going into electrification. And it's really not just an automotive. Hyundai had announced their Urban Air Mobility, I think they rebranded that as Supernal. But they're looking at electric aircrafts. And, and electric boats are kind of coming online as well. So I think really just, you know, Ed, the future of sustainable mobility across, however we're traveling, is going to continue to be a trend in the market. And you probably know that here at the MEDC, we have Trevor Pawl, who does a lot with electrification and mobility for the state. And I know you've had some interaction with the MEDC or Dave has in the past on different projects. Yeah, long, long and positive relationship with the MEDC. You know, we've worked on STEM programs, job creations, education, you know, and they've always really been a really good resource for us to kind of navigate the different government channels that we work through sometimes. So it's always been something we've been happy to engage with, and will continue to engage with.

E

Ed Clemente 21:18

Okay, the hard part's over the last couple of questions. Just what would what quick advice would you give yourself when you're 18? Maybe before you went to a career if you talk to a career today? And then what would you you have something in your pocket you would tell people like your yourself again?

A

Anthony Garofali 21:35

Yeah, yeah, so I mean, just advice, I think, is really just to get out of your comfort zone. If I look back in the past, I tend to regret things I didn't do more than the things I did do. And you know, you can't be afraid to fail, because it's ultimately if you're not failing, you're not growing. You can think about any new endeavor that you started, if you wanted to go play a guitar, at first, you're going to be terrible, right? But you got to keep keep going. So I guess, if I were to try to summarize that into a quote, or something like that, I would say, you know, try to chase the person you want to become, but only compare yourself to who you were yesterday. And I think that gives you a good mindset to always be chasing and trying to improve yourself. But stop and recognize, you know, the small wins that you have, because it's really those small wins, that are the compound interest of who you become.

E

Ed Clemente 22:38

Very well put, this one I should have added it and then hopefully you have someone at the top of your head. But is there anyone historical you sort of, you know, think had good leadership style?

A

Anthony Garofali 22:51

Yeah, that's a that's a real tough, tough question, to narrow it down. It's like saying, what's your favorite? But I'll tell you this, when I look at leadership qualities, the things that I admire are people that lead by example. People that are agents for change, and people that are willing to take risks. So even my own advice I tend to admire and despite what other people are saying, a lot of times, you know, you know, when you're trying to do something new, there's a lot of critics. And so when I think back in history, you know, who are people that that really did that, you know, I think of great leaders, you know, like, Winston Churchill comes to mind, Martin Luther King did that, you know, Abraham Lincoln did that. So there's a lot of great ones, it's tough to narrow it down. But I would say those are the qualities that that are kind of the makeup of a great leader.

E

Ed Clemente 23:49

No, that was a great answer. You know, and I know Tony, you've got little kids, so I imagine you have a different experience about what you enjoy best about the state, like, what do you like about Michigan and all those kinds of things?

A

Anthony Garofali 24:03

Yeah, I think, you know, we're living living in a hidden gem here, you know, you listen to those Pure Michigan commercials, and it's just who wouldn't want to be here in Michigan. But really, the thing I think I enjoy most is really living in a four season state, you know? Springs coming along and and the kids are getting their bikes out and we're spending time outside, you know, summer's great, you know, we got these big, freshwater oceans practically that you can go and you know, and you travel, just, you know, an hour, two hours almost in any direction and you'll hit water somewhere, it's just absolutely amazing. And then once the fall starts coming, and the leaves start changing, it's great camping weather and you know, you get up north and it's just just absolutely beautiful. And then in the wintertime, my kids enjoy skiing, you know, and snowboarding. So, we don't have the you know, the big mountains out west but you know getting up to, you know, Nubs Knob and Boyne Highlands, it's plenty enough to have a good time and spend some time and you know, snowmobile trails and everything. So it's just, you always have some new hobby to look forward to in Michigan, I feel like and it's just an amazing place.

E

Ed Clemente 25:22

Yeah, I almost don't want to tell people how nice Michigan is sometimes. [Yeah, exactly.] Well, once again, I want to thank you. Today, our guest was Tony Gatofali, he is the he is the Country Manadina Director for Altair. And Tonv its been a real pleasure. esoeially catchina up with you

managing the business and very, very, very, very, very, very, especially looking up at you on your family lineage as well. And thank you very much for doing this podcast, you did Altair a great favor today.

A

Anthony Garofali 25:47

Well, thanks Ed, Thanks for having me on. It was a pleasure.

E

Ed Clemente 25:50

Well alright, see you next time, hopefully.

A

Anthony Garofali 25:52

All right, take care.

E

Ed Clemente 25:53

Join us for our next guest Jennifer Brace, Global Trends and Futuring Manager, Ford Motor Company, helping Ford be better prepared for what lies ahead and the best job title ever.

A

Announcer 26:06

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