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Issue: May 6, 2019

CEOCFO Magazine

Bringing to market their Facial Recognition Technology that can capture Color and Facial Features in 3D, Alcatraz AI is delivering a completely Frictionless Access Control Authentication Method

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CEOCFO: *Mr. Gaydarzhiev, what is the concept behind Alcatraz AI?*

Mr. Gaydarzhiev: The concept behind Alcatraz AI actually started when we were working at Apple and previously at NVIDIA, where we saw a lot of technology being developed by both of the companies for the consumer space. However, their physical access security was lagging behind on campus. We saw an opportunity to use our skills and our experience to create a next generation, completely frictionless access control authentication method, where people would not be needing to interact with any technology, with any security systems to gain access to facilities or rooms or buildings. They would just be going towards the location and they would be authenticated. The company was started three years ago and since then we developed the technology. We are piloting our product in select partners, multiple verticals, including one of the biggest corporations in the valley. The results are pretty amazing. We see great adoption and the employees really do not need to learn anything new or how to use new technology.

CEOCFO: *What were the challenges in creating the technology? What were you able to put together that others have not?*

Mr. Gaydarzhiev: Facial recognition, in general, is a great tool to match basic features, but it is on a very high level not secure. This is because you can trick the cameras that take the pictures of the faces with a flat picture, a flat video on a tablet, essentially creating a non-secured environment. Therefore, the challenges for us were around how to really make sure when a face is presented, to recognize the face and we make sure that face is a real face corresponding to an identity and the authentication of the transaction is trusted by the employees and the admins of the company. We also need to do that within half a second, so the experience of the user is seamless, without the need for any interaction. In the real world, this is very tough, due to lighting conditions and blur, caused by people walking.

CEOCFO: *What are you able to capture about a face that makes it much less likely there will be a mistake?*

Mr. Gaydarzhiev: We capture the color spectrum of the face, which is the flat picture of the face. We also capture 3D data about the face. Which means potentially we know all your facial features in 3D, which helps us find if it is a real face and not just a picture or a video of someone.

CEOCFO: *Is it common to try to fake a facial ID with a video or with a picture?*

Mr. Gaydarzhiev: Yes. It is very common. You can see articles about the newest Samsung Galaxy phones and how they do facial recognition and how people can unlock their friend's phones with just a picture of them that they found on Facebook. This means inherently that the technology cannot be trusted and should not be used for anything more than matching or getting high level data about a person or crowd. If you are going to security where you have to be almost one hundred percent accurate, then you should be able to trust the authentication.

CEOCFO: *On the Alcatraz AI website your mission statement states, “Our algorithms constantly improve with deep learning based analytics at the core.” I understand if you see the same face over and over, but what about someone new? How does the machine learning help in newer or maybe very infrequent visitors to a particular location?*

Mr. Gaydarzhiev: Talking to companies, especially big corporations that want to deploy similar technologies that will be used by thousands of people, we found a pretty common problem, which is that enrolling those employees is a big problem. Currently, you have to call all those thousands of employees back to HR or the IT office to take a new scan of the face or their iris, which creates a lot of friction. How we do it instead is that we just ask the new employees to keep badging in as normal. Then with our deep neural net, every time someone badges in we find their face. We collect their data and in time, within days, we are able to start recognizing them and finally binding their facial profile, their facial biometric template, to their badge number. Therefore, as soon as they show up in front of the door one morning, either on the third or fourth day, they will be able to just use their face to get in. Any time afterwards, when you see them we also try to see their face, capture their face and save that profile as well on top, to keep improving their biometric template.

“We are well positioned to lead the secure frictionless access control area... In our business, especially with facial recognition, with neural networks, the more technology you have deployed out there, the better you get when you are improving your own algorithms. Even as it is now, we have amazing traction, which allows us to really create a very secure, but also very frictionless access control system.”- Vince Gaydarzhiev

CEOCFO: *How are you reaching out? When you are at an event where there are a number of people looking to show what they can do, how do you stand out from the crowd?*

Mr. Gaydarzhiev: As of right now, we do not market our product. We are still in the pilot stage, so all the inbound requests are purely by word of mouth and through a couple of articles that were written about us. At a conference, sometimes I am invited to speak about the technology in general and how the industry is moving from badging or old forms of authentication to the next generation of secure transactions. Therefore, that is another way for our product and our vision to be explained to the audience.

CEOCFO: *When did you realize you were on the right track, that you could make it work?*

Mr. Gaydarzhiev: Just by talking to a lot of corporations, we are finding they are experiencing the same problems that we have had as engineers at our previous company and we mutually have the same pain point. By us talking about our product and asking them how they envision the perfect access control system, that is how we gain more confidence that we are doing will actually really help the industry and remove much of the security concerns and friction concerns with many of the security administrators have.

CEOCFO: *Are people actively looking for a better way or is it more that when they find Alcatraz AI they are going to want to at least take a look if not make a move?*

Mr. Gaydarzhiev: It depends on the company and the use case. Sometimes companies are looking to increase security in general for their employees or their customers or their visitors. Sometimes the companies need to be compliant in order to pass certain certification or they are looking for heightened security or maybe even dual factor authentication security, which we can provide. Sometimes companies are just looking for the cool factor, something that is coming from the future or from the movies and they want to impress their customers or their visitors. Every angle is different and we try to serve as a startup with a couple of different verticals where our value added is significant. Then eventually, we can expand to more verticals.

CEOCFO: *Are you looking for investment, partnerships or funding as you move forward?*

Mr. Gaydarzhiev: As of right now we are funded. Throughout the summer, as we are launching more pilots and we get more feedback and success stories, we may go and raise our next round of venture capital. We are also always looking for partnerships. In this business you cannot do it alone. We love working with system integration partners, with companies that can supplement or product, our technology and all of us can provide fully integrated products to our end customers.

CEOCFO: *What have you learned so far as the product is being tested? What has changed from your original idea?*

Mr. Gaydarzhiev: When you test something in the lab or the engineers are employed to work on the product and then it actually goes and deploys in the field, you actually see how real people, without knowing anything about the technology,

will use it in the real world. In the case of our specific product there are many different use cases, depending on lighting conditions, how fast people walk, at what angle, how they face the entry point or even not, as they may be just looking at their phone. Through those learnings we keep iterating, we keep improving our algorithms to take into account all of those different use cases.

CEOCFO: *Why pay attention to Alcatraz AI? What sets the company apart?*

Mr. Gaydarzhev: We are well positioned to lead the secure frictionless access control area. We have an amazing team with a great pedigree. We have good partners and investors. The more we deploy, the more we will learn, the better it will be. In our business, especially with facial recognition, with neural networks, the more technology you have deployed out there, the better you get when you are improving your own algorithms. Even as it is now, we have amazing traction, which allows us to really create a very secure, but also very frictionless access control system.