

JOINT PRESS RELEASE
FOR RELEASE ON MARCH 18, 2019



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Scottsdale, March 18, 2019 - Two Phoenix-area companies, Saccadous, Inc. and Systems Imagination, Inc. (SII) have teamed up in a partnership to advance the latest technologies in the application of eye tracking to interpret human brain function. Saccadous uses high-speed eye tracking to diagnose and track neurological problems, such as traumatic brain injury (TBI) and dementia. Systems Imagination uses artificial intelligence (AI) and machine learning to help healthcare companies discover hidden insights in big data. Together the two companies intend on accelerating the meaningful interpretation of subtle changes in human eye movements that may reflect higher level cognitive function such as intention, and the signals that indicate impairment in neurological disease.

“In one five-minute eye test, we generate tens of thousands of lines of data,” explained Saccadous CEO Craig Caffarelli. “Even though we can chart some of that data and see patterns, we really need the capabilities of Systems Imagination to help us develop the algorithms that will identify the exact signature of each neurological disease.”

The partnership is a mutually beneficial arrangement that will produce several new applications of the combined technologies, the companies said. Systems Imagination is developing an eye tracking application that will capture eye movements of researchers and clinicians as they investigate biomedical data that has been organized and displayed graphically on monitors and headsets. The data will then be used to develop predictive algorithms that will help pharmaceutical drug discovery find more important insights more quickly and more intelligently than previously possible. Saccadous and SII also plan to address the needs for capturing and understanding big data using eye tracking and predictive analytics in other areas of healthcare, such as disease diagnosis, treatment, and telemedicine.

“Systems Imagination is focused on the application of artificial intelligence and other predictive analytics to find the hidden insights in biomedical big data,” explained Dr. Chris Yoo, CEO of Systems Imagination. “Now that powerful computing has enabled us to work with the new knowledge generated from genomics, the scientific literature, and the rapidly growing body of electronic health data, we can finally get to ask how humans interpret that knowledge. We are excited to build innovative solutions with Saccadous that can help patients today, and enable smarter systems for biomedicine.”

Both companies see the value of working together to help advance the healthcare technology climate in Arizona as a whole. The two CEOs met at ASU’s Hacking the Human healthcare event in November 2018 that Chris Yoo and Rick Hall of the College of Health Solutions organized to encourage the development of partnerships in the Arizona healthcare innovation ecosystem.

“It’s exciting that both of our companies started around 2014 in very different disciplines and yet, ended up finding a great deal of synergy that could be developed between our two technologies,” Caffarelli said. “In a lot

of places, that could get lost in the noise of so many other technologies. Chris and I both think it helps everyone to work together with companies right here in our own backyard of Arizona.”

ABOUT SYSTEMS IMAGINATION, INC.

Systems Imagination, Inc. (SII) applies the latest in AI, including, deep learning software and locally based GPU compute technology to accelerate the development of novel algorithms for SII clients and partners. SII serves the big data analytics needs of any industry to generate impactful insights with greater precision and efficiency. www.systemsimagination.com

ABOUT SACCADOUS, INC.

Saccadous is a healthcare hardware company that provides a non-invasive platform technology for diagnosing, tracking and advancing the treatment of Traumatic Brain Injury (TBI) and other neurological diseases. This is done through the capture and analysis of voluntary and involuntary eye-movements taken during a 5 minute eye test. www.saccadous.com