The Young Alumnus: AbdulRaheem Bello, B.S., 2011

ENERGY, PHYSICS, ASTRONOMY, Q&A, ALUMNI

Physics and astronomy alum founded Afthon, an energy startup. Interviewed by Vivian Abagiu.

You moved to Houston as a teen in 2006 from your home country of Nigeria. How did your childhood influence your career path?

Credit: Wyatt McSpadden

Growing up in Nigeria I had a singular dream, which was to become an astronaut. I was amazed by the night sky. So I always wanted to study the stars. I decided that I would study astronomy first to learn about the stars and then go on to study aerospace engineering, with a focus on propulsion, so I would get the opportunity to work on building an engine to take you "to the stars." I graduated with degrees in astronomy and physics at the age of 18 and then went on to receive a master's and doctorate in aerospace engineering from UT Arlington.

As CEO of the startup, Afthon, you're innovating with new engine technology. What do you hope to achieve?

I founded Afthon in 2014 as a way to commercialize and further develop a pulse-detonation engine, which uses supersonic burning and can increase engine efficiency by 25 percent. I am hoping to apply this fundamental groundbreaking science and technology to be able to go farther and faster with less fuel so that it'd be possible, for example, to travel to Mars in a month rather than the eight months it takes with current rocket engines. At Afthon, I think we're making some key advances, and we're confident that some of the configurations that we're pioneering will be able to start making this technology more practical.

What experience was most meaningful to you during your academic career?

The Freshman Research Initiative (FRI) was one of the very unique experiences I had while at UT Austin. I got to actually do science and not just read about it. I joined the physics stream in the spring and from then on I worked with Dr. John Markert and one of his graduate students, Dr. Isaac Manzanera, for two and a half years. Getting that very early exposure to work in a lab was really something that helped sustain my passion, and it is one of the reasons I continue doing research today. The long arc to where I am now really started with my experience in the FRI program.

What motivates you to have a positive impact on society through science?

My faith. I am Muslim, and my faith impels me to use my efforts in the best service to humanity possible. That is why the core focus of my work is on serving society. I don't believe in doing science just for the sake of science. I'm constantly asking, "What's the impact that this could create?" That continues to drive me as an entrepreneur. If we're successful and we're able to push this technology forward, it literally could change how fuel is burned around the world for electricity generation and transportation. I believe in making that future reality.

PREVIOUS
The Faculty Member: Livia Schiavinato Eberlin

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