To Create Your Own Destiny: Sharad Jones

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Sharad Jones was in first grade and barely able to read when he stumbled across a book on the life cycle of stars in the school library. Poring over the pages, he learned that over a period of about 4 billion years, the sun would eventually expand to a red giant and consume the earth. He had to know more.

Science books were his main source of entertainment growing up in Dallas, Texas. Jones excelled at math and especially loved physics in high school. During trips to the Johnson Space Center, McDonald Observatory, and Kitt Peak Observatory he saw Saturn V rockets and Hubble telescope imagery that filled his mind with thoughts of space exploration. He determined to study astronomy.

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Jones discovered the answer to his childhood question many years later while at Rice University—that the life cycle of a star is shaped by the balance between gravity pulling particles inward, and the fusion of those particles releasing energy that explodes the structure of the star outward. His area of study focused on the moment in a young star's development immediately preceding fusion in its core—lots of gravity but no explosions yet—which is the only place anywhere in the universe where supersonic flows are found. The study of supersonic outflows of young stars could have consumed his entire career. However, Jones grew restless with the time series analysis that collected about one image every year of stars that were thousands of light years away. Feeling stifled in a sliver of galaxy, he needed a broader array of problems to solve and wider frontiers to explore.

He wanted more data, and faster.

After graduating in Astronomy, Jones took some time to consider what energized him. He was drawn to new frontiers. He traveled a bit and discovered his love for the American West, national parks, and landscape photography.

He had a reputation as a car buff among his friends, who kept him busy on the side crunching used car data for great automobile finds. He designed a car app to try to quantify his knowledge, and then pitched his app to Carvana, a new startup based in Phoenix, Arizona. They offered him a job with their team of 30-40 employees, and within a few months he transitioned to a full-time data scientist role. Working at Carvana during the IPO and hypergrowth phase was exciting, but after three years Jones wanted to expand his skill set. He wanted more opportunities to solve interesting and meaningful problems.

He applied to graduate school at USU in statistics, where he found his home in data science. “From a personal growth perspective, this field is very gratifying. When I went into industry at Carvana I didn’t even know this was a discipline. Machine learning and data science in general opened the door for me to work on many different problems. Almost every problem, task, project, and piece of research is based on data, and we’re developing techniques to analyze patterns in data. This field opened doors to work on literally any type of project or concept I want to,” says Jones, whose recent projects have included satellite imagery analysis, children’s narratives, and audiology and neuroscience problems.

Jones received his PhD in Statistics from USU in 2021. He is an assistant professor in the Department of Data Analytics and Information Systems at the Huntsman School where he is contemplating questions surrounding data representation. “We’ve gotten pretty good at the mathematical part. Algorithms can solve almost any problem at this point. The bigger question is the data—how can we make correct and equitable labels that are representative of what we’re actually trying to solve?” For this one-time astronomist, the sky of data science has no limits.