

Heart of a Tiger: Kansas Academy of Math and Science alum ready to make her mark on the world

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By Tisa Mason

HAYS, Kan. - Jorja Burch grew up in Pratt, Kansas, where the warmth of the community and the steadfast support of her parents, Verlan and Starla Elliott, created a nurturing environment for her to flourish.

From an early age, Jorja displayed a natural curiosity that propelled her into the world of science. A middle school science fair project that compared household bleach brands' effectiveness against stubborn Kool-Aid stains piqued her interest in understanding the "why" behind everyday things.

"I always had to understand why something worked the way it did. And my desire to dig deeper grew with every question," Jorja reflected. Driven by this insatiable thirst for knowledge, she learned about the Kansas Academy of Mathematics and Science (KAMS) and knew this unique program was where she belonged. "I wanted a learning experience tailored to me: small class sizes where I could communicate with peers and professors and hands-on research experience."

KAMS was no ordinary educational experience. Designed for gifted and talented students, it offered early college immersion, college-level courses, and, notably, hands-on research experience. The residential community welcomed her with open arms—a blend of intellectual rigor and camaraderie that spoke to her nature.

"From day one, I felt inspired and enthusiastic about learning," she said, recalling her impressions of Fort Hays State University's (FHSU) vibrant campus. "Small class sizes allowed me to engage meaningfully with my peers and professors."

Jorja describes KAMS as "an incredible experience that taught me how to ask critical questions and design experiments, and it made me a stronger scientist overall. KAMS built the foundation, and FHSU expanded on it, which ultimately prepared me to be successful in graduate school and beyond."

Jorja dove into plant biology research. She polished her technical skills in molecular and cellular biology labs, uncovering a passion cultivated with each experiment. She thrived in a culture emphasizing collaboration, assisting her peers first as a student and later as a tutor. "It was rewarding to give back, supporting other students in subjects I had grown to love," she noted.

Jorja completed her bachelor's degree at FHSU in 2021. She served as a VIP Ambassador for the Office of the President and as the Chemistry/Pre-Professional Club president. Under her leadership, the club organized several volunteer and outreach initiatives, instilling in her the importance of community engagement. The Honors College experience further enriched her education, focusing on personal growth and mentorship.

Throughout her undergraduate years, Jorja showcased her determination and capability. She presented her research findings at various conferences, connecting with fellow scientists and

mentors, one of whom was Dr. Amidon, whose advice she still cherishes. “He shaped my entry into the workforce and provided invaluable insights into navigating my academic journey,” Jorja reminisced.

In 2021, Jorja embarked on her Ph.D. journey at Texas A&M University, a decision driven by her commitment to research and her desire to expand her understanding of evolutionary biology. “I was accepted straight out of my bachelor’s program,” she said. “That was such an honor; it meant I could jump into intensive research without taking a couple of extra years to pursue a master’s degree.”

The path to her Ph.D. has been built not only on her academic achievements but has also laid a strong groundwork for future success. Recently recognized with the Lawrence S. Dillon Distinguished Graduate Student Award at Texas A&M, she looks forward to defending her doctoral dissertation in November 2024.

Yet Jorja’s path hasn’t been devoid of challenges. “I have always struggled with setting boundaries between my research and my personal life.”

“I remember being completely overwhelmed with coursework and career planning in my second year of the KAMS program. I sat in Will Burns’ office, planning my next two years of classes, when he suggested that I wait to take organic chemistry and instead take a yoga class to try to relax. Completely appalled by this suggestion, I left to consider my options, and the next week, I enrolled in organic chemistry for the following semester. I passed the class, vowed never to take another chemistry course, and switched my study from pre-medicine to biology. Had I never made this switch, I might’ve never found the research I am passionate about.”

Despite not following Will’s advice, Jorja recognizes his wisdom and shares that finding ways to destress is a skill she is still cultivating. While continuing to hone this skill, she encourages future generations to embrace moments of clarity and rest amidst the whirlwind of academia. “Taking time to destress is so important. I wish I had prioritized that sooner,” she adds thoughtfully, with the wisdom of her experiences resonating through her words.

“I think about the moments of joy and struggle, the teachers who believed in me, the peers who supported me,” she said, reflecting on her journey. “Every step, every question asked has brought me to this point. I am so grateful to KAMS for providing the foundation upon which I built my career and to FHSU for expanding my horizons. It’s a network of support that I carry with me everywhere.”

As her dissertation defense approaches in November 2024, Jorja embodies all the promises of a scientist on the precipice of a bright future. She is not just a researcher but an educator, an advocate for young students striving for their dreams in STEM, and a mentor in the making.

Jorja’s unwavering dedication to research and education ensures she will leave her mark in evolutionary biology and inspire countless others to follow their dreams and explore the infinite possibilities that await them.

Jorja Burch embodies the heart of an FHSU tiger through her resilience, passion, and pursuit of knowledge. From her roots in Pratt, Kansas, to the expansive research landscapes of Texas A&M University and beyond, she continues to push boundaries, redefine what’s possible, and inspire others with her journey.

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