Michael Dax Garner received a Bachelor of Science in Aerospace Engineering in May 2008 and his Master of Science in Aerospace Engineering in December 2009 from The University of Texas at Austin.

As an undergraduate student, Dax worked as a co-op for L-3 Communications: Integrated Systems in Greenville, Texas. As his first engineering endeavor, he quickly realized his interests lie more in spaceflight and sought an undergraduate research position in the Satellite Design Lab (SDL) at UT. In the fall of 2007, Dax essentially became the “systems engineer” for the student satellite project Texas 2-STEP. The mission for Texas 2-STEP was to perform autonomous, on-orbit, proximity operations with a rapidly producible nanosatellite. At the time, a systems engineering position on one of the student satellite design teams was little more than a leadership position. Coincidentally, the UT Aerospace Department was going through a curriculum update and decided to piloted course entitled Space Systems Engineering sponsored by NASA's Exploration Systems Mission Directorate. In the spring of 2008, Dax participated in the pilot class. The class uniquely provided an awareness and appreciation of systems thinking, tools, and processes encountered as professionals, but Dax was able to directly apply them to the student satellite project as he learned them.

During his career as a graduate student, Dax was a teaching assistant (TA) and a research assistant (RA). Dax was the TA for the Space Systems Engineering course while he continued to work on Texas 2-STEP. When the satellite competition ended in January 2009, Dax moved his experience to a fledgling small satellite program, Paradox. During the spring 2009 semester, Dax helped the student team lay the foundations for the program and at the end of the semester became an RA to fully support the Paradox program. As an RA, he supported Paradox in the development of the rendezvous guidance algorithm and performed systems engineering such as developing the Paradox Concept of Operations, requirements, system hierarchy, etc.

With his excellent systems education and project experience within the SDL, Dax saw a need to tailor the NASA style of systems engineering taught in the undergraduate systems engineering course for the unique environment of a student-based design laboratory such as the SDL. Dax sought to highlight the systems practices that have been shown by past projects to be necessary and yet are in the purview of students’ capabilities. In addition, the opportunity to properly implement systems engineering practices on the Paradox project start to finish motivated the systems engineering thesis as a guide for students in the SDL.

Upon receiving his Masters of Science in Engineering, Dax joined the small, dynamic company: Odyssey Space Research in Houston, Texas. With a reputation in guidance, navigation and control (GNC) design, Dax plans to expand his knowledge and skills of GNC and systems engineering on the Constellation: Orion project.