Skilled NASA Co-op Dives Fearlessly into his Future

By: Desiré Bennett

Kyle Flenar is the UC College of Engineering and Applied Science Engineer of the Month for March. Kyle maintains a 3.989 GPA in his junior year in the aerospace engineering program while working toward dual Bachelor of Science and Master of Science degrees in Aerospace Engineering in the college’s ACCEND program.

Kyle says that he chose to attend the University of Cincinnati because the opportunity to utilize cooperative education is unparalleled.

“I chose UC because of the established co-op program,” he said. “I knew that the exposure to the engineering industry would be invaluable in showing me the opportunities that are out there and help me decide on the direction I wanted to take my career.”

Kyle says his love of math and science is why he chose to study aerospace engineering. “When I got to high school, calculus and physics were my favorite courses,” he said. “And I enjoy being challenged – engineering requires solving problems where no one has the answer. Problems that make you want to pull your hair out – that is what I thrive on.”

Kyle believes what is most interesting about aerospace engineering is that it is dynamic and applicable to many situations. “The aerospace industry is continuously evolving as technology advances,” he said. “The problem-solving skills learned from engineering are applicable to so many other aspects of life and other industries that it’s amazing.”

Via the co-op program, Kyle was able to put those problem-solving skills to the test. His first co-op experience was a research position at the University of Cincinnati. “I analyzed the effect of bleed holes on supersonic airflows, which is essentially seeing how small holes on an aircraft engine affect fast-moving air.”

Kyle’s other co-op experience was with GE Aviation in Lynn, MA, where he worked as a member of Military Systems Operations in the International Programs Department.

Kyle says that he learned important skills from both cooperatives. “During my research co-op, I learned the process of how to conduct research and present the results in a meaningful way,” he said. “At GE, I learned how to effectively work with people of various educational and social backgrounds during my project management position by working with people in engineering, business, manufacturing, and legal, as well as with international customers.”
He says that being in a management role as a co-op student also taught him the importance of presenting one’s self and one’s work with confidence. “These skills have been very useful for class presentations and for other research I have been involved with.”

Kyle is currently working at the NASA Ames Research Center in California’s Silicon Valley. “I am the first student to be working at Ames under the NASA-UC Space Act Agreement. My current work pertains to the next generation of air traffic management, specifically the inclusion of unmanned aircraft into the national airspace,” he said. “It involves developing computer codes, running flight simulations, and analyzing the results.”

Based on his merits as an exceptional undergraduate aerospace student, Kyle was awarded a NASA Aeronautics Scholarship last year. During the summer, he will be working on a project as part of the program. He considers this, along with his ability to maintain good grades while juggling extracurricular activities, research experiences, and jobs, to be among his best academic achievements.

Kyle participates in several extracurricular activities. In past years, he has participated in the Engineering Tribunal, Relay for Life, and the Alpha Lambda Delta Honorary Fraternity. He is currently a member of Engineering Ambassadors. As an Engineering Ambassador, he works with prospective UC students by giving tours of the engineering buildings, participating on Q&A panels, and providing a student’s perspective on the CEAS aerospace department.

He is a student member of the American Institute of Aeronautics and Astronautics (AIAA), an organization through which he co-authored and published a research paper.

He is also an active member of the UC Club Swim Team. “I am one of the club’s Safety Officers, where I am a (Red Cross) certified first responder for any injuries that may occur during practices or meets,” he said. “I am also currently working on expanding the club to include diving.”

Kyle’s main interests outside of school are running (he runs half marathons and hopes to run his first full marathon within the next year), swimming, and skydiving. “I’ve made two jumps so far and am hoping to get licensed as a skydiver by the time I graduate. It’s such an amazing sport!”
Kyle says that successfully managing his extracurricular activities and course work is a matter of learning to prioritize. “For me, it’s all about prioritization. We are only here for a few short years, and it’s easy to get excited and join a lot of the different organizations on campus, and also spend time with friends,” he said. “It’s up to each person to find the balance that works for them and makes them happy.”

After graduation, Kyle plans to continue his education. “In addition to building on my Master of Science degree, I will possibly pursue a PhD in engineering,” he said. “An MBA may also be on the horizon, though. There is just so much to learn!”