INTERNING THROUGH NEW FRONTIERS

NASA Glenn welcomed more than 125 full-time interns this summer, with 46 working on-site. Through telework and hybrid intern options, however, students have opportunities to experience rewarding internships, no matter where they set up their office. This year's interns successfully showcased the versatility of work modes in the modern age. Hear from a few summer interns who are pioneering the way for future Glenn interns to work, and extending the frontiers of internships to come.

By Isabel Rodriguez

Virtual

Andrew Scott, Systems Engineering and Architecture Division

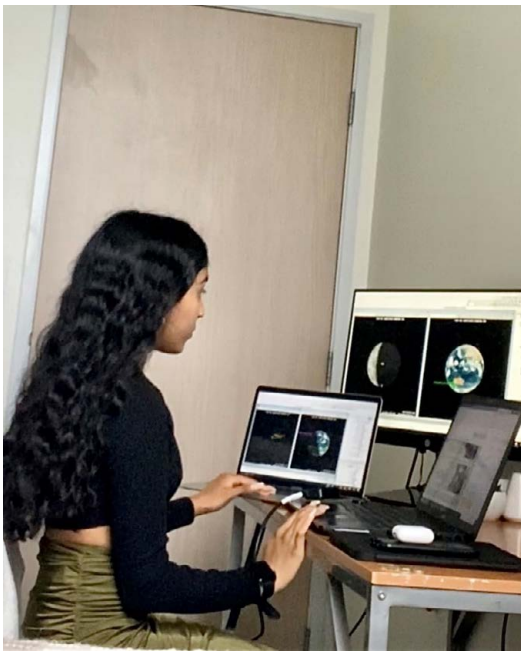
Mentor: Janice Romanin

As a knowledge management (KM) intern, Scott focuses on updating material to reflect current knowledge management practices and data, such as KM presentations and Glenn's Knowledge Management website. He believes there are advantages and disadvantages to his virtual internship.

"Working virtually both constrains and widens my opportunities with NASA," Scott said. "I, unfortunately, cannot be on-site with my mentors, physically visit the buildings, or hang out with my fellow interns," he said. "Yet, I work to make connections with other students. Ultimately, I wouldn't have been able to intern at NASA if this internship was not virtual."

GRC-2022-CN-00032

Scott



GRC-2022-CN-00034

Khalique

Virtual

Monica Khalique, Space Communications and Navigation (SCaN) Intern Project

Mentors: Taylor Pember and Tim Gallagher

Through this internship, Khalique works in different project areas, including the LunarLiTES mission, which focuses on bringing 4G/LTE to the Moon. Despite the virtual mode of her internship, Khalique feels she is still "maximizing" her time and efficiency working for Glenn because of the support she has received from mentors.

"Although at first I worried about a virtual format, I can confidently say that my mentors put their best efforts forward to ensure I get the full experience interning at NASA," she said. "I feel prepared and ready to work on real-mission initiatives with immense support from my mentors."

About the Author

GRC-2022-CN-00035 Photo by Bridget Caswell

Isabel Rodriguez works virtually in Glenn's Office of Communications. Her mentor is Jan Wittry.

On-site

Samuel Dillenbeck, ISS and Human Health Office

Mentors: Dr. Suman Sinha Ray and Nancy Hall

Dillenbeck's project revolves around computer coding and electronics, with his project focusing on automating micrometer movement along two dimensions. His work consists of writing a program, assembling the wiring and "breadboard," and then building a rig to support the micrometers' movement. Through his internship, Dillenbeck gains hands-on experience within his project area.

"Working on-site has made the internship much more personally impactful than it would have in a virtual environment," he said. "It allows me to take in the full experience of what it means to be a NASA employee."

GRC-2022-C-04777 Photo by Bridget Caswell

Hall, right, with Dillenback

GRC-2022-C-04798 Photo by Jef Janis

Hatch, left, with Ray

On-site

Katherine Ray, Low-Gravity Exploration Branch

Mentor: Tyler Hatch

Ray works in different projects and experiment areas, such as in the 2.2 Second Drop Tower and with the Intravenous Fluid Generation Mini and Capillary Effects on Liquids Exploratory Research experiments. With these various areas of research and project contributions, Ray feels working on-site has greatly contributed to her overall NASA experience and future career.

"This opportunity enables me to make more connections with people and network," she said. "Being on-site allows me to work with laboratory instrumentation and technology that I could not have experienced in a virtual setting."

Hybrid

Brianna Hobert, Turbomachinery and Turboelectric Systems Branch

Mentor: Mark G. Turner

Hobert is working as a turbomachinery design intern designing components for a turbofan engine on a novel hybrid-electric aircraft known as SUSAN (SUbsonic Single Aft eNgine). She feels a hybrid internship offers the flexibility that gives her the best of both worlds.

"I have worked both hybrid and in-person and I honestly feel like I am getting the full experience either way," she said. "There is an equal balance of outreach opportunities, networking opportunities, and technical work."

GRC-2022-CN-00036

Hobert

GLENN'S ARTEMIS GENERATION PREPARES FOR FLIGHT

Jenny Hayes

For 14 years, Hayes has worked on the Orion Structures team and currently serves as deputy manager for the Orion Structures and the Orion Structures/Thermal Protection System Functional Area. Hayes feels the Artemis I mission is the "highlight" of her career and a true testament to international cooperation for the benefit of humanity.

"Artemis I is a great example of what can be accomplished with a successful collaboration between NASA, industry, and the European Space Agency," said Hayes. "I am proud to be a part of the Artemis program and a return to the Moon."

After launch, Hayes will be leading the Crew Module Adapter Inner Wall Delta Structural Qualification and supporting the Orion/SLS joint requalification for Artemis IV.

GRC-2022-CN-00038

Hayes at the Vehicle Assembly Building at NASA's Kennedy Space Center.

GRC-2022-CN-00037

Bury in an Orion Crew Trainer Mockup at NASA Johnson.

Kristen Bury

Bury is the Program Integration Functional Area Manager in Orion's European Service Module (ESM) Integration Office, and has spent the past five years focused on integration between NASA and ESA (European Space Agency). Previously she spent ten years working modeling, simulation, and analysis of Orion's electrical power system.

The Artemis I mission is special for Bury as she feels it is a culmination of her 15-year career and will be her first vehicle to fly in space.

"This is my childhood dream of spaceflight and exploration fully realized," Bury said. "I'm working on the test flight that will enable us to land the first woman and first person of color on the Moon! I'm so proud and humbled to be a part of this incredible team!"

After launch, Bury will shift towards working on the programmatic integration of ESMs for Artemis II through IV, which are all in varying stages of assembly, integration, and test.

By Isabel Rodriguez

GRC-2022-CN-00039 Photo by Jeremiah Hall, Lockheed Martin

Fisher at launch pad 39B at NASA's Kennedy Space Center while preparing for Artemis I Wet Dress Rehearsal.

Caleb Fisher

Fisher is an Orion subsystem manager who ensures the spacecraft is kept within strict limits for contamination, humidity, temperature, and hazardous gas accumulation during all preflight assembly, testing, transport, and launch pad operations. He also supports the planning and execution efforts of launching Artemis from NASA's Kennedy Space Center and coordinating the cross-country return of Orion after splashdown in the Pacific Ocean. Fisher believes working at NASA is more than an ordinary job. It is an opportunity to work on efforts that benefit humanity.

"I came to NASA because I wanted my job to be more than a paycheck. I wanted those 80,000 hours of my life to go toward something meaningful, something which—as NASA says—is for the benefit of all," said Fisher. "Like everyone on the Orion team, I have devoted years of my life to the Artemis mission, and a successful flight will be incredibly meaningful, and a dream come true."

After launch, Fisher will continue working on the assembly, testing, transporting, and launching of future Artemis spacecraft.

John Zang

As Space Environments Complex (SEC) manager, Zang managed thermal vacuum acceptance testing for the Orion spacecraft flying on Artemis I at the SEC; coordinated test operations; and supported staff during chamber preparation activities, vehicle testing, and post-test activities. Zang says the "promise" of humanity's return to the Moon and continued space exploration truly excites him.

"The Artemis mission is exciting because of the promise of the return of humans to the Moon, exploring it in a way that previous missions were unable," Zang said. "It is the promise that what will be learned on the Moon will help pave the way for the next steps of a human landing on another planet or Moon."

After launch, Zang will prepare the SEC for the planned Acoustic, Shock, Deployment and Lightning Orion Extended Testability Analysis (ETA) testing.

GRC-2020-C-02534 Photo by Bridget Caswell

Zang inside the Orion Crew Module during the testing at Neil Armstrong Test Facility.