

## Summer 2018 Internship Projects

The list of this year's internships projects can be found below. Click on each project title to jump to a description of the project. To learn more about the National Air and Space Museum Summer Internship Program and apply, please visit [our website](#).

### WASHINGTON, DC

#### Curatorial and Archival Internships

Aeronautics Research: Cold War in the Air (Curatorial)

Space History Research: Moving Beyond Earth (Curatorial)

#### Education Internships

Astronomy Education

Middle School STEAM Education

#### Museum Management and Operations Internships

Advancement and Fundraising

Visitor Services

#### Planetary Research Internships

Analyzing Radar Datasets of the Moon and Venus (CEPS Research)

Wind Features on Mars and Science Outreach (CEPS Research)

Venusian Impact Ejecta (CEPS Research)

#### Strategic, Digital, and Visual Communications Internships

Communications

Digital Content Creator (Written)

Digital Graphics Producer

Exhibit and Graphic Design

Digital Video Archiving

Video Production

### CHANTILLY, VIRGINIA

#### Education Internships

Aerospace Education

Middle School Programs (Education)

Engaging Girls in STEM (Education)

## Museum Management and Operations Internships

Visitor Services

## SUITLAND, MARYLAND

### Collections Internships

Collections Processing

### Exhibits Production Internships

Fabricating Museum Exhibits and Signage

# WASHINGTON, DC

Internships at the National Air and Space Museum's building on the National Mall in Washington, DC.

## Curatorial and Archival Internships

### Aeronautics Research: Cold War in the Air (Curatorial)

The intern will work with the curatorial team for the permanent military suite galleries currently under development for the Museum's renovation project. The galleries will detail the connections between the technologies of military conflict and the global community during World War I, World War II, and the Cold War. The intern will conduct research in digital and physical libraries and archives in the Washington, DC, region, learn best practices for historical documentation and research, and develop interesting and dynamic interpretive frames for understanding global conflicts.

### Space History Research: Moving Beyond Earth (Curatorial)

The intern will help with research, image collection, editing, and updates for the *Moving Beyond Earth* exhibition, the Museum's human spaceflight gallery that explores the history of the space shuttle, ISS, and the future. It examines issues of accessing space, spacecraft design, workforce diversity, living and working in space, science research, and developing a long-duration human presence in space. The intern will also assist the curator in organizing the program/agenda for the upcoming gathering of air and space museums in Tucson, AZ. The intern should be an independent worker comfortable in a team setting.

## Education Internships

### Astronomy Education

The intern will learn about astronomy education and communication to the public while conducting daily programming in the Phoebe Waterman Haas Public Observatory and astronomy-related galleries and assisting with a teacher professional development workshop. The intern will help research, develop, and/or revise astronomy hands-on activities which reflect educational best practices, and will help train volunteers and staff to have engaging and effective conversations about science with visitors. The intern will work at least one weekend day per week.

### Middle School STEAM Education

The intern will contribute to the Museum's efforts in the area of middle school STEAM (science, technology, engineering, arts, and mathematics) education. The intern will develop and pilot-test lessons for school audiences that incorporate museum resources and STEAM concepts, and will prepare materials for use by teachers and students. The intern will conduct research to support STEAM activity development and will assist with teacher workshops. After completing this internship, the intern will be able to create lesson plans and associated resources, incorporate museum resources into school-based learning experiences, and facilitate learning experiences for students and teachers.

## Museum Management and Operations Internships

### Advancement and Fundraising

The intern will assist with the Museum's membership program, the National Air and Space Society (NASS), and the Wall of Honor, serving as the front-line contact for members, gaining introductory skills interacting with members, donors, and Museum stakeholders and gaining experience maintaining a pan-institutional development database. The intern will assist with drafting and designing proposals for major individual and corporate donors. The intern will also learn about donor relations, corporate and foundation relations, and prospect/donor research. The intern will gain experience interacting with donors, using tools to determine best practices for fundraising units, and learning from a successful fundraising unit.

### Visitor Services

The intern will assist with the day-to-day management of the Visitor Services (VS) program, including customer service, scheduling, and coordinating support services. The intern will act as liaison to the Museum's Behind-the-Scenes volunteer program, restructuring how these departments utilize volunteers, reviewing record-keeping systems, and directly interfacing with volunteer managers of many departments served by these volunteers. The intern will help run a VS volunteer training, research and write proposals on ways to improve the Museum and/or VS, manage and oversee volunteers at the Welcome Center, and assist with Museum programs. The intern will also support the Health and Safety program by drafting communications such as articles, bulletins, and training resources. This internship can be based at the Museum in Washington, DC, or at the Steven F. Udvar-Hazy Center in Chantilly, Virginia, depending on the selected intern.

## Planetary Research Internships

### Analyzing Radar Datasets of the Moon and Venus (CEPS Research)

The intern will work with radar datasets collected by Earth-based telescopes for the Moon and Venus, and/or with radar sounding data from the SHARAD and MARSIS Mars-orbiting instruments. The intern will design the specifics of the project based on their interest in particular signal processing, radar scattering properties, or geologic applications of the data. Following completion of this internship, the intern will have learned the basics of IDL programming language for image processing and data analysis and learned how radar remote sensing can be used for a variety of applications.

### Wind Features on Mars and Science Outreach (CEPS Research)

The intern will work with a geologist and program manager in the Museum's Center for Earth and Planetary Studies on projects in the areas of both scientific research and public outreach. The intern will look for good examples of the unique Aeolian bedform called "Transverse Aeolian Ridges" (TARs) on Mars using image data from multiple orbiting spacecraft currently active around Mars. The supervisor will provide guidance and assist the intern in understanding what features are to be cataloged in the images, and how to document results. The intern will also assist with the preparation for and implementation of an annual family educational program related to Mars. The intern will gather,

develop, and prepare materials, assist with running the program, and develop and present an educational activity with guidance from the supervisor.

### **Venusian Impact Ejecta (CEPS Research)**

The intern will work with a geologist from the Museum's Center for Earth and Planetary Studies to measure the distribution of Venusian impact ejecta in tesserae terrain. The intern will use remote datasets collected from the Magellan spacecraft to measure the backscatter coefficient for various surface deposits on Venus, making a significant contribution to an ongoing, multi-year research endeavor. The intern will learn how to use the ArcGIS program, becoming an expert in analysis of planetary remote datasets, including adding and projecting planetary datasets within the program, producing geologic maps, and using other geospatial analysis techniques. The intern will also learn how to analyze geologic features in radar images.

## **Strategic, Digital, and Visual Communications Internships**

### **Communications**

The intern will work with the Communications office, performing a variety of typical communications functions, giving the intern a broad range of experience. Exact projects can be flexible depending on interest and background of intern. The intern will learn about pitching stories to the news media, creating targeted media lists, tracking media reach and publicity value, writing press releases and other communications collateral, and developing media strategies for events and programs. The intern will also support the Museum's marketing, obtaining/expanding knowledge related to destination marketing through work on advertising plans and development and implementation of a Museum program's multi-platform marketing plan. The intern will also enhance abilities in the development and/or design of print and online advertisements.

### **Digital Content Creator (Written)**

The intern will support the Digital Experiences department in identifying, researching, and writing content for the Museum's website, mobile app, and other digital products. The intern will synthesize information from content experts and researchers and translate complex ideas into compelling stories. The intern will cover and create content based on live programming such as lectures and behind-the-scenes activities. The intern will gain experience writing for a large Museum audience and will add samples of work to his or her writing portfolio. The intern will also assist in content clean-up of website and metadata.

### **Digital Graphics Producer**

The intern will translate Museum content into compelling graphics or animations and should have experience in Adobe Creative Suite. The intern projects will be shaped around the intern's skillset. Types of projects include researching and creating new infographic content for the Museum's website, creating gifs or other animations for the Museum's website and social media accounts, creating compelling graphics to accompany Museum blog posts, and assisting in content clean-up of website and metadata. The intern will gain experience creating digital content for a large Museum audience and will add samples of work to his or her portfolio.

## Exhibit and Graphic Design

The intern will work with the Museum's Exhibits Design department to create graphics for signage, posters, brochures, and exhibits. The intern will learn how the exhibit design process works, how exhibitions are made, how to prepare graphics packages for production, and what other departments at the Museum do and how the Exhibits Design department interacts with them. Intern should have skill in using the Adobe Creative Suite, specifically InDesign, and skill in the use of typography.

## Digital Video Archiving

The intern will work with the Interactive Media and Outreach department to learn the current workflow of the department's media editing lab and analyze and suggest better approaches to workflow. The intern should have comprehensive digital media skills, including digital file management, understanding of distribution on networks, understanding of non-linear video editing, digital project management, and digital record-keeping. The intern will identify and resolve problems with projects in-progress, archive completed projects, and identify and collect final products and distribute to all appropriate destinations. The intern will also assist with video productions as needed.

## Video Production

The interns will work with the Interactive Media and Outreach production team to produce videos for the interactive webcast, STEM in 30, as well as for the website. This will include editing of pre-taped video, filming and editing new pieces, and the production of live programming on the museum floor. The interns should be proficient with video editing (Final Cut Pro or Adobe Premier preferred) and video production including videography lighting and audio. Interns will get an opportunity to produce content that is immediately published through different channels at the National Air and Space Museum.

# CHANTILLY, VIRGINIA

Internships at the National Air and Space Museum's Steven F. Udvar-Hazy Center in Chantilly, Virginia.

## Education Internships

### Aerospace Education

The intern will work with the Discovery Station, Interactives, and family day programs at the Steven F. Udvar-Hazy Center in Chantilly, Virginia. The intern will work with science and history learning materials to create a set of new learning activities. The intern will design new activities, prototype interactives, and train volunteers to implement vetted learning activities. The intern will gain introductory knowledge of aerospace content, develop activities that help visitors gain a deeper understanding of the collection in a fun and informal learning style, and discover and implement theories behind effective education and communication. Some weekend work will be required.

## Middle School Programs (Education)

The intern will work with the Education and Public Engagement department in the development of a new middle school program, which aims to reach 50,000 middle school students through on-site programming in the first year. The intern will conduct research and develop ideas with the middle school programs team to better engage students who visit the Museum and reach students in classrooms in under-resourced schools across the country.

## Engaging Girls in STEM (Education)

The three Engaging Girls in STEM interns will help in the planning and facilitation of a two-week day camp for local girls to explore STEM topics. The camps, which will take place during the last two weeks of the internship, will focus on innovation in aviation, exploring museum artifacts as well as posing design-engineering challenges and team-based activities to campers. The interns will work as a team to create content and materials for the bulk of the experience, reviewing research of past years' interns and building upon it with new research. The interns will also practice the techniques of engaging girls in STEM by working with the public in facilitating museum programming.

## Museum Management and Operations Internships

### Visitor Services

The intern will assist with the day-to-day management of the Visitor Services (VS) program, including customer service, scheduling, and coordinating support services. The intern will act as liaison to the Museum's Behind-the-Scenes volunteer program, restructuring how these departments utilize volunteers, reviewing record-keeping systems, and directly interfacing with volunteer managers of many departments served by these volunteers. The intern will help run a VS volunteer training, research and write proposals on ways to improve the Museum and/or VS, manage and oversee volunteers at the Welcome Center, and assist with Museum programs. The intern will also support the Health and Safety program by drafting communications such as articles, bulletins, and training resources. This internship can be based at the Museum in Washington, DC, or at the Steven F. Udvar-Hazy Center in Chantilly, Virginia, depending on the selected intern.

## SUITLAND, MARYLAND

Internships at the National Air and Space Museum's Paul E. Garber Facility in Suitland, Maryland.

## Collections Internships

### Collections Processing

The intern will work in collaboration with staff from the Collections Processing Unit to support the collections work associated with the Museum's upcoming renovation. The intern will work on object handling, photography, database processing, and object moves. The intern will learn about collections department responsibilities and activities and experience exhibition development through the lens of the Museum's revitalization project.

## Exhibits Production Internships

### **Fabricating Museum Exhibits and Signage**

The intern will work with various equipment and materials to learn the processes and techniques used in fabricating museum exhibition and signage and provide actual exhibit components to be used in the Museum. The intern will learn the process of taking a design file to production, making adjustments, including color correction techniques, to the file before producing through the use of a large format printer. The intern will learn about the installation of graphics into a museum exhibit. The intern will also learn other associated tasks in the Exhibits Production department including matting and framing images, silkscreen printing processes, print and cut vinyl processes, and woodshop skills.