Summer 2017 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

Archival Information Management

Diversity in Space History Exhibitions (Curatorial)

Interview Transcription and Qualitative Analysis (Space History/Curatorial)

Space Shuttle Artifact Acquisitions (Space History/Curatorial)

Education Internships

Astronomy Education

Engaging Girls in STEM (Education)

Middle School STEAM Education

Museum Education

Museum Management and Operations Internships

Advancement and Fundraising

After-Hours Programming

Project Management

Visitor Services

Planetary Research Internships

Investigating the Subsurface of Mars (CEPS Research)

Jupiter’s Moon Europa (CEPS Research)

Mapping Lava Flows on Mars and Science Outreach (CEPS Research)

Venusian Impact Ejecta (CEPS Research)

Strategic, Digital, and Visual Communications Internships

Communications and Public Relations

Digital Content Creator (Written)
Exhibit and Graphic Design
Digital Video Archiving
Multimedia Design and Production
Social Media
Video Production

CHANTILLY, VIRGINIA

Conservation Internships
  Conservation of *Flak-Bait*
  Paper Conservation

Education Internships
  Aerospace Education
  Engaging Girls in STEM (Education)

Museum Management and Operations Internships
  Visitor Services

Strategic, Digital, and Visual Communications Internships
  Communications and Marketing

SUITLAND, MARYLAND

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

Archival Information Management
The intern will work with the Exhibit Design department to set up a method for archiving assets. The intern will learn how the exhibit design process works, how exhibitions are made, what makes up exhibition assets, and how to archive exhibition assets.

Diversity in Space History Exhibitions (Curatorial)
The intern will work with a curator from the Department of Space History to identify opportunities to broaden representations of ethnic, racial, and gender diversity in six exhibitions. The intern will gain knowledge of historical, photographic, and multimedia sources and complement the history of space exploration; acquire knowledge of primary museum and archival documentation, including The Museum System (TMS), the Museum Archives document databases, and the Smithsonian Digital Asset Management System (DAMS); learn the basics of research at the Smithsonian and National Archives, and identify and suggest opportunities for future research, resources needed, and where to obtain such resources.

Interview Transcription and Qualitative Analysis (Space History/Curatorial)
The intern will work with recorded interviews and observational notes to assist in a study of consensus formation in expert assessment committees. The intern will transcribe the interviews and work with the researcher to develop a coding system and compile the data from the interview. The intern will work with the researcher to create a database of qualitative data to assist in analyzing and understanding the data. The intern will gain skills and experience with interview transcription, coding, and analysis; gain skills and experience with qualitative data analysis and social science methods; become familiar with competing models of consensus formation and the role of consensus in the relationship between science, expertise, and policy making; and become familiar with post-WWII history of science and technology advising to the government.

Space Shuttle Artifact Acquisitions (Space History/Curatorial)
The intern will assist the chair of the Department of Space History in reviewing, consolidating, and reducing artifact acquisition records for more than 500 objects from the Space Shuttle program in preparation for their upcoming digitization. The intern will gain knowledge of artifact transfer and acquisition practices, develop an eye for details in working with official documents, improve skills in project assessment to develop methods and practices that improve efficiency, and work with the Museum’s artifact database and other software to use project tracking and reporting tools. The intern should have an interest in archival or registrarial work.
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.

Engaging Girls in STEM (Education)
The three Engaging Girls in STEM interns will work together to develop an understanding of how to engage girls in STEM learning and careers and learn to conduct and evaluate STEM education programs in a museum setting. The interns will use research conducted by previous Engaging Girls in STEM interns as well as their own research to assess the extent to which the Museum’s current education program offerings follow recommended research and best practices. The interns will also develop a new educational activity or recommend modifications to an existing activity and then prototype and assess the new or revised program activity.

Each intern will also work separately with her supervisor on education programming, including but not limited to the Explainers Program and Smithsonian TechQuest, the *How Things Fly* Design Hangar, and the Phoebe Waterman Haas Public Observatory. Please note: two Engaging Girls in STEM interns will be based at the Museum in Washington, DC, while one will be based at the Steven F. Udvar-Hazy Center in Chantilly, Virginia.

Middle School STEAM Education
The intern will contribute to the Museum’s new 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 the 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 Education
The intern will work in the Education Department to provide assistance with various museum education programs, including Interactive Video Conferences, the Museum’s internship program, and Discovery Stations. The intern will receive training on the development and testing of new activities and will research topics and activities for new Discovery Stations and provide ideas for updating and revising current stations. The intern will also assist in Family Day programs and Flights of Fancy story time.
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 also research the membership programs of other organizations to make recommendations on how NASS can expand its communication with members. The intern will also learn about donor relations, corporate and foundation relations, and prospect/donor research. The intern will gain experience interacting with donors, use tools to determine best practices for fundraising units, and learn from a successful fundraising unit.

**After-Hours Programming**
The intern will work with the Lectures and Programs staff within the Public Engagement Department to coordinate and run lectures and evening programming. The intern will be tasked with developing new after-hours programming at the Museum, seeing the project through from conception to implementation. The intern will gain an understanding of programming at a large museum as well as current programming trends through research and visitation. The intern will work with Museum staff and curators to learn how to tailor programming to specific exhibits and artifacts; learn methods to increase visitor engagement and attract new audiences; and gain skills in program logistics, ticketing, crowd control, and customer service.

**Project Management**
The intern will mentor with a team of project managers of varying experience levels to better understand museum project management operations, general project management skills, and museum operations for a complex museum system. The intern will be exposed to the Life Cycle Project Management process for several medium and small projects in different stages of development. The intern will provide on-demand research for a wide variety of needs including market research for material and costs, standard operating procedures of comparable organizations, and general investigations for all project delivery teams.

**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.

Please note: two Visitor Services interns will be based at the Museum in Washington, DC, while one will be based at the Steven F. Udvar-Hazy Center in Chantilly, Virginia.
Planetary Research Internships

Investigating the Subsurface of Mars (CEPS Research)
The intern will work with a geologist from the Museum’s Center for Earth and Planetary Studies and use SHAllow RADar (SHARAD) datasets to investigate the three-dimensional structure of geologic features buried beneath the surface of Mars. Through the integration of SHARAD data with other Mars datasets, the intern will look for spatial correlations to aid their interpretation of the subsurface, and with the assistance of the supervisor the intern will derive hypotheses to explain the subsurface patterns they observe. The intern will combine Photoshop and ArcMap GIS to spatially analyze SHARAD to better constrain the geologic history of the study areas. The intern supervisor is a science team member of the SHARAD instrument and thus the intern will gain first-hand experience in the operation of an active NASA mission and the targeting of new data.

Jupiter’s Moon Europa (CEPS Research)
The intern will work with a geologist from the Museum’s Center for Earth and Planetary Studies to track ridges across the surface of Jupiter’s moon Europa. Double ridges are one of the most ubiquitous features on Europa’s surface. Despite decades of intensive study, it is still unclear how they form and evolve. The intern will use and improve skills working with ArcGIS software by digitizing and tracking double ridge locations, transitions, characteristics, and morphologies; gain experience using remote sensing data, specifically from robotic spacecraft; and gain experience exploring icy satellites, especially Europa which is the target of an upcoming NASA mission.

Mapping Lava Flows 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 create interpretive maps of distinctive lava flows on Mars using image data from several of the orbiting spacecraft currently active around Mars. The intern will gain understanding of basic concepts of planetary remote sensing, learn how to make observations using different Martian data sets, and learn or improve skills in ArcGIS. 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 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, which are more complicated than standard visible imagery.
Strategic, Digital, and Visual Communications Internships

Communications and Public Relations
The intern will work with the Communications office, performing a variety of typical communications functions, giving the intern a broad range of experience. 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.

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 re-package existing content from lectures, object records, and exhibitions into new and relevant stories for the Museum’s website and mobile app. The intern will cover and create content based on live programming such as lectures and behind-the-scenes activities. The intern will also work on the Google Arts & Culture project. Google has captured the Museum using panoramic photography to create a walk-through of the building. The intern will help launch this experience through Google Arts & Culture’s Museum Views platform and will help load imagery and content to make a robust online tour.

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.

Multimedia Design and Production
The intern will work with the Interactive Media and Outreach production team to design and create multimedia in support of various productions across the museum, including a webcast series, video interviews, educational animations, podcasts, and exhibition media. The intern will also explore the role of multimedia in a museum environment as it relates to educational programming and outreach. The intern should possess strong skills in one or more of the following areas: motion graphics and software (After Effects, Motion, Illustrator, etc), 3D animation software (Cinema 4D, Maya, etc), digital video editing software (Adobe Premier, Final Cut Pro, etc), videography, education media, or museum design.
Social Media
The intern will work with the Digital Experiences team on their efforts to create a seamless Museum experience inside and outside our walls. The intern will help evolve the Museum’s social media strategy and explore new ways of creating and sharing content via social media. The intern will also develop educational content; share the Museum’s ongoing activities, exhibitions, and programs; and evaluate the success of social media engagement with museum audiences.

Video Production
The intern 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 intern should be proficient with video editing (Final Cut Pro or Adobe Premier preferred) and video production including videography lighting and audio.

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

Conservation Internships

Conservation of Flak-Bait
The intern will work with the Conservation department towards the stabilization of the Martin B-26 Marauder Flak-Bait, developing a treatment methodology for stabilizing interior batting fabric from the nose of the aircraft. The intern will also engage in other Museum conservation activities such as basic artifact cleaning, photographic and written documentation, and assistance with preparing artifacts for exhibition or loan. The intern will gain introductory exposure to aircraft maintenance, conservation condition report writing, photo documentation, and performing treatments.

Paper Conservation
The intern will work with the Conservation department on examination, documentation, conservation treatment, and rehousing of the Chinese paper kite collection at the National Air and Space Museum. The collection originates from the 1876 Centennial Exhibition in Philadelphia and represents the origins of the Museum’s collection. The intern will learn about paper conservation and work with the Museum paper conservator on this project. The kites are primarily composed of Traditional Chinese paper, wood, and other organic materials. They are ornately decorated in a calligraphic style and represent various figures, animals, and sometimes incorporate animated and audible components.
Education Internships

Aerospace Education
The intern will work with the Discovery Station and Interactives program 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.

Engaging Girls in STEM (Education)
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Museum Management and Operations Internships

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Strategic, Digital, and Visual Communications Internships

Communications and Marketing
The intern will support the Museum’s marketing and communications activities at the Steven F. Udvar-Hazy Center. The intern will obtain/expand 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. The intern will learn about and assist with outreach efforts to local tourism industry organizations. The intern will also develop skills relating to survey research by assisting with the design, implementation, and analysis of a visitor survey and will gain skills related to media relations as they pertain to a large, public museum by assisting/staffing media and documentary film/photo shoots.

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

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.