

**Opportunity Title:** AFIT Research Internship--CubeSat Design, Build, and Test

**Opportunity Reference Code:** AFIT-2020-0017

**Organization** U.S. Department of Defense (DOD)

**Reference Code** AFIT-2020-0017

**How to Apply** Components of the online application are as follows:

- Profile Information
- Educational and Employment History
- Essay Questions (goals, experiences, and skills relevant to the opportunity)
- Resume (PDF)
- Transcripts/Academic Records - For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. [Click here for detailed information about acceptable transcripts.](#)
- 1 Recommendation(s)

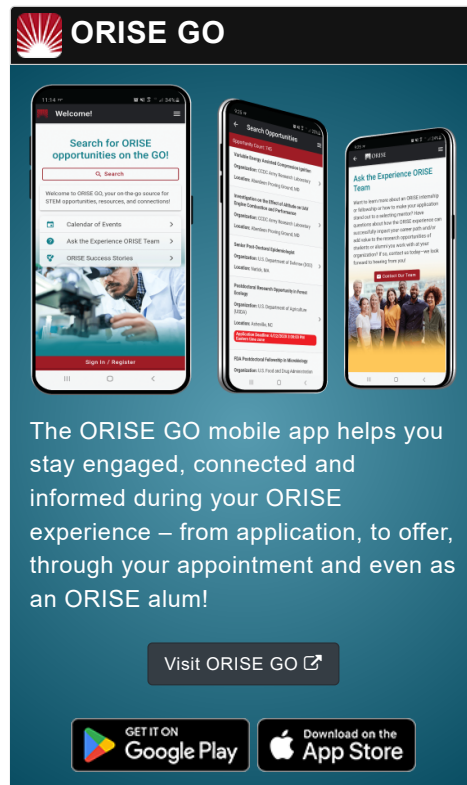
Submitted documents must have all social security numbers, student identification numbers, and/or dates of birth removed (blanked out, blackened out, made illegible, etc.) prior to uploading into the application system.

If you have questions, send an email to [AIRFORCE@orise.orau.gov](mailto:AIRFORCE@orise.orau.gov). Please list the reference code of this opportunity in the subject line of the email.

All documents must be in English or include an official English translation.

**Description** The Center for Space Research and Assurance (CSRA) at the Air Force Institute of Technology (AFIT), located on Wright-Patterson Air Force Base, Ohio, executes cutting-edge space technology development, science, and space experiments in collaboration with other US government organizations. Our goal is to meet the challenges of tomorrow by developing the technical space cadre through world-class research and immersive hands-on graduate education. For more information, visit us at <https://www.afit.edu/CSRA/>.

The participant will assist AFIT faculty and staff in advancing the process of designing, building, and testing micro-Satellites (CubeSats). The CubeSat project supports AFIT's education and research mission and provides excellent hands on experience for our students, staff, and interns. This opportunity will support CSRA's software team in developing, modifying, and testing satellite flight software necessary to operate the CubeSat project as an experimental spacecraft on-orbit. The software engineering



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efforts include payload, bus, and ground-station functions in three phases: development, test, and operations. The participant will interact with researchers across various space disciplines to advance the development of CSRA's spaceflight experiments, garnering experience in commercial and government-owned satellite software, satellite design and hardware considerations, and software design project management.

### Appointment Length

An ORISE appointment period can be a short-term (less than 2 weeks), summer (10-12 weeks), or yearlong appointment. Faculty appointments are generally for 10-12 weeks during the summer, but appointments during the academic year are also available. Appointments may be extended depending on funding availability, project assignment, program rules, and availability of the participant.

### Participant Benefits

Participants will receive a stipend to be determined by **USAFIT**. Stipends are typically based on the participant's academic standing, discipline, experience, and research facility location. Other benefits may include the following:

- Health Insurance Supplement. *Participants are eligible to purchase health insurance through ORISE.*
- Relocation Allowance
- Training and Travel Allowance



### Nature of Appointment

The participant will not enter into an employee/employer relationship with ORISE, ORAU, DOD, or any other office or agency. Instead, the participant will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

### Qualifications

Participants should be current undergraduate students pursuing degrees in mechanical, electrical, or software engineering, computer science, or related fields. A strong GPA, experience working in technical project teams, and an interest in space technology are highly desired.











### Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Currently pursuing a Bachelor's Degree.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 )
  - **Communications and Graphics Design** (2 )

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- **Computer, Information, and Data Sciences** (16 )
- **Earth and Geosciences** (21 )
- **Engineering** (27 )
- **Environmental and Marine Sciences** (14 )
- **Life Health and Medical Sciences** (45 )
- **Mathematics and Statistics** (10 )
- **Other Non-Science & Engineering** (2 )
- **Physics** (16 )
- **Science & Engineering-related** (1 )
- **Social and Behavioral Sciences** (27 )