What are the benefits of an internship?

Internships are a great opportunity to gain industry experience and bolster your resume. If you are unsure about a certain career path, doing an internship allows you to try it out. Even if you end up finding that you are no longer interested in the specific field of your internship, you will have developed valuable skills and expanded your professional network. We recommend checking out the following list of STEM-based internship opportunities for high school students.

Table of Contents

Army Educational Outreach Program 2
Air Force Research Lab Scholars Program 3
Code2College Software Engineering Leadership Program 4
Dept. of Navy Science & Engineering Apprenticeship Program (SEAP) 5
J. Craig Venter Institute Internship Program 6
Johns Hopkins Applied Physics Lab ASPIRE Program 7
Maine Space Grant Consortium MERITS Program 8
MITRE Internships 9
National Aeronautics and Space Administration (NASA) Internships 10
National Cancer Institute Werner H. Kirsten Student Intern Program 11
National Institutes of Health Biomedical Research Internships 12
National Institute of Standards and Technology Intern Program 13
National Security Agency Work-Study 14
Princeton Plasma Physics Laboratory Internships 15
Saturday Academy Apprenticeships in Science & Engineering 16
Spark Summer Intern Program 17
Texas Department of Transportation Internships 18
Army Educational Outreach Program

High School students work one-on-one with a university researcher or Department of Defense scientist mentor during this authentic science and engineering research apprenticeship.

Engineering Disciplines

- Biomedical engineering
- Chemical engineering
- Electrical/computer engineering
- Mechanical engineering
- Software engineering

Eligibility

- U.S. citizen or permanent resident
- Varies by location

Location

- Remote
- Various

Internship Dates

- Application open December 15 - February 28

Compensation

- Paid

Learn More: https://www.usaeop.com/program/high-school-apprenticeships/
Air Force Research Lab Scholars Program

The Air Force Research Laboratory (AFRL) Scholars Program offers internship opportunities for students to contribute to unique, cutting-edge, research-based projects while gaining valuable hands-on experiences working with full-time AFRL scientists and engineers.

Engineering Disciplines

- Aerospace engineering
- Electrical/computer engineering
- Mechanical engineering
- Software engineering

Eligibility

- Upper-level high school student

Location

- Various

Internship Dates

- Application due January

Compensation

- Paid

Learn More: https://afrlscholars.usra.edu/
Code2College Software Engineering Leadership Program

The Code2College program includes after-school coding sessions, technical portfolio development, monthly professional development workshops, and a summer internship/consultancy.

Engineering Disciplines
- Software engineering

Eligibility
- High school student

Location
- Austin, TX

Internship Dates
- Training during the academic year, summer internship

Compensation
- Paid

Learn More: https://code2college.org/
Dept. of Navy Science & Engineering Apprenticeship Program (SEAP)

The Science and Engineering Apprenticeship Program (SEAP) places high school students in Department of Navy (DoN) laboratories where they take part in real Naval research.

Engineering Disciplines

- Aerospace engineering
- Electrical/computer engineering
- Mechanical engineering
- Software engineering

Eligibility

Some exceptions are made by individual labs.

- U.S. citizen
- At least a high school sophomore
- 16 years of age or older by start date

Location

- Arizona
- California
- Connecticut
- Florida
- Hawaii
- Indiana
- Maryland
- Mississippi
- New Jersey
- Pennsylvania
- South Carolina
- Virginia
- Washington
- Washington, D.C.

Internship Dates

- Application open August 1
- 8 week program

Compensation

- $4,000

Learn More: [https://navalsteminterns.us/seap/](https://navalsteminterns.us/seap/)
J. Craig Venter Institute Internship Program

JCVI provides students opportunities to be a part of groundbreaking science. During the course of the program, there are also numerous workshops designed to help develop scientific and professional skills. These include journal clubs, career development sessions and multi-disciplinary scientific seminars.

Engineering Disciplines

- Biomedical engineering
- Electrical/computer engineering
- Software engineering

Eligibility

- 18 years of age or older

Location

- La Jolla, CA
- Rockville, MD

Internship Dates

- 10-15 week program
- Summer, some opportunities during the academic year

Compensation

- $15 per hour

Learn More: https://www.jcvi.org/education/internship-program
Johns Hopkins Applied Physics Lab ASPIRE Program

ASPIRE interns are paired with APL staff mentors to complete projects, solve problems, and learn and apply crucial technical and interpersonal skills in a hands-on, professional environment.

Engineering Disciplines
- Electrical/computer engineering
- Mechanical engineering
- Software engineering

Eligibility
- U.S. citizen
- High school junior or senior by start date
- 15 years of age or older by start date
- Unweighted GPA of 2.8 or greater

Location
- Laurel, MD

Internship Dates
- Summer application open January 1
- Academic year and/or summer

Compensation
- Unpaid

Learn More: [https://secwww.jhuapl.edu/stem/aspire/](https://secwww.jhuapl.edu/stem/aspire/)
Maine Space Grant Consortium MERITS Program

The Maine Research Internships for Teachers and Students (MERITS) Program provides opportunities to conduct research and technology development and experience “real-time” applications of science, technology, engineering and math.

Engineering Disciplines
- Aerospace engineering

Eligibility
- High school junior

Location
- Remote
- Maine

Internship Dates
- Application due January
- 6 week program

Compensation
- Varies by host organization

Learn More: https://www.msgc.org/students/internships/highschool/
MITRE Internships

MITRE is a not-for-profit company that tackles complex challenges for the public good. These challenges include countering cyber threats, advancing robotics capabilities, and making healthcare more equitable. Students can explore a particular field of interest, work in a world-class lab, get hands-on experience, and connect with mentors and peers.

Engineering Disciplines

- Electrical/computer engineering
- Software engineering

Eligibility

- 14 years of age or older
- High school freshman or sophomore at time of application
- 3.0 GPA or greater

Location

- Bedford, MA
- McLean, VA
- Other

Internship Dates

- Application open January

Compensation

- Paid

National Aeronautics and Space Administration (NASA) Internships

NASA Office of STEM Engagement (OSTEM) offers a variety of paid internships that allow high school students to contribute to agency projects under the guidance of a NASA mentor.

**Engineering Disciplines**
- Aerospace engineering
- Electrical/computer engineering
- Mechanical engineering
- Software engineering

**Eligibility**
- U.S. citizen
- At least 16 years of age at time of application
- 3.0 GPA or greater on a 4.0 scale

**Location**
- NASA offers internships at locations throughout the U.S. and internationally.

**Internship Dates**
- Fall internships: late August/early September to mid-December, 16 weeks
- Spring internships: mid-January to early May, 16 weeks
- Summer internships: late May/early June to August, 10 weeks

**Compensation**
- Most interns receive a stipend award.

Learn More: [https://intern.nasa.gov/index.html](https://intern.nasa.gov/index.html)
National Cancer Institute Werner H. Kirsten Student Intern Program

The Werner H. Kirsten Student Intern Program is a unique internship opportunity designed to expose high school seniors to research and administrative management in a health care environment.

Engineering Disciplines
- Biomedical engineering

Eligibility
- U.S. citizen or permanent resident
- High school junior at time of application
- 17 years of age or older by start date
- Has taken or is planning to take both a science and mathematics course or has the equivalent of three math/science years of credits
- 3.0 GPA or greater on a 4.0 scale or 2.5-3.0 GPA with third teacher recommendation

Location
- Frederick, MD

Internship Dates
- Application open October 15 - December 15
- 1 year program

Compensation
- Unpaid

Learn More: https://ncifrederick.cancer.gov/careers/student_programs/internships/SIP/
National Institutes of Health Biomedical Research Internships

The High School Summer Internship Program (HS-SIP) gives students an opportunity to spend a summer working alongside leading NIH scientists on biomedical research projects.

Engineering Disciplines

● Biomedical engineering

Eligibility

● U.S. citizen or permanent resident
● High school junior or senior at time of application
● At least 17 years of age
● Must live within 40 miles of internship site

Location

● Bethesda, MD
● Baltimore, MD
● Frederick, MD
● Research Triangle Park, NC
● Hamilton, MT
● Framingham, MA
● Phoenix, AZ
● Detroit, MI

Internship Dates

● Application due February 1
● Typically an eight-week program with three orientation dates in June

Compensation

● $2,000 per month

Learn More: https://www.training.nih.gov/programs/sip
National Institute of Standards and Technology Intern Program

The Summer High School Intern Program (SHIP) provides students with the opportunity to work closely with NIST staff scientists and engineers on a specific, cutting-edge research problem.

Engineering Disciplines

- Chemical engineering
- Electrical/computer engineering
- Mechanical engineering
- Software engineering

Eligibility

- Completed junior or senior year of high school by start date

Location

- Gaithersburg, MD

Internship Dates

- June - August

Compensation

- Unpaid

Learn More:

https://www.nist.gov/careers/student-opportunities/summer-high-school-intern-program
National Security Agency Work-Study

NSA offers high school students the opportunity to earn a paycheck while gaining real-world experience in the career of their choice.

Engineering Disciplines
- Electrical/computer engineering
- Software engineering

Eligibility
- Software engineering
- U.S. citizen
- High school junior at local high school
- 16 years old by December 31 of high school junior year
- Enrolled in at least two courses pertaining to desired position

Location
- Ft. Meade, MD (headquarters)
- Aurora, CO
- Augusta, GA
- San Antonio, TX
- Oahu, HI

Internship Dates
- Minimum 4 hours per day / 5 days a week (Monday-Friday)

Compensation
- Paid

Learn More: https://www.intelligencecareers.gov/nsa/nsastudents.html
Princeton Plasma Physics Laboratory Internships

Princeton Plasma Physics Laboratory offers students the chance to work on a project with a member of their research or engineering staff.

Engineering Disciplines
- Electrical/computer engineering (plasma engineering)

Eligibility
- At least 16 years of age by start date
- Graduating senior in high school by start date
- U.S. citizen or permanent resident

Location
- Princeton, NJ

Internship Dates
- Summer deadline: February 28
- Fall deadline: April 30
- Spring deadline: November 30

Compensation
- Unpaid

Learn More:
https://www.pppl.gov/high-school-semester-long-internship-high-school-summer-internship
Saturday Academy Apprenticeships in Science & Engineering

The Apprenticeships in Science & Engineering (ASE) program connects motivated high school students with mentors in science, technology, engineering and math (STEM) pre-professional internships. Mentor organizations include universities, hospitals and research institutions and private companies.

Engineering Disciplines

- Chemical engineering
- Electrical/computer engineering
- Mechanical engineering
- Software engineering

Eligibility

- Rising high school sophomore, junior, or senior

Location

- Oregon
- Southwest Washington

Internship Dates

- Application due March
- 8 week program

Compensation

- Unpaid

Learn More: https://www.saturdayacademy.org/ase
Spark Summer Intern Program

The Spark Summer Intern Program connects high school students with industry experts, educators and mentors.

Engineering Disciplines

- Chemical engineering
- Electrical/computer engineering
- Mechanical engineering
- Software engineering

Eligibility

- Varies by host organization

Location

- Seattle, WA

Internship Dates

- Varies by host organization

Compensation

- Varies by host organization

Learn More: https://www.sparksip.org/
Texas Department of Transportation Internships

TxDOT's Summer Internship Program is designed for students who are seeking to gain practical work experience in engineering jobs.

Engineering Disciplines
- Civil engineering

Eligibility
- 17 years of age or older

Location
- Texas

Internship Dates
- May 1 - August 15

Compensation
- Hourly wage, varies by position

Learn More: https://www.txdot.gov/careers/students.html