# Internships - State-wide Model and Best Practices

Mary Sandy, Director
Virginia Space Grant Consortium
Mid-Atlantic Region Space Grant Meeting
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### Internships – a key VSGC Program focus





- Approximately 7,500 students placed in paid internships with NASA, other federal labs and industry.
- Developed and managed NASA's Undergraduate Student Research Program and managed the NASA Langley Aerospace Research Student Scholars Program among others.



## Value Proposition



- Real world training and knowledge application for intern; training potential employee for company.
- Professional networking/exposure to field of choice.
- Hone soft skills confidence building, teamwork, communication.
- Make students more competitive for post graduation job market.
- For Federal Labs, part of mission to help ensure future STEM workforce.
- Students bring fresh energy and cuttingedge ideas.



Networking Event at Career Enhancement Seminar



## A Bit of History



- Desired for years to establish an internship program supporting Virginia's workforce and economic development.
- First couple attempt for funding from the Virginia General Assembly beginning in 2009 were not successful.
- Request for funding in 2012 legislative session was successful because of strong support from the Virginia Secretary of Technology and one powerful legislator.



Jerlyn Allen, Army Veteran Cybersecurity Intern at MI Technical Solutions who has been hired.



## A Bit More History



- Obtained funding from the Commonwealth of Virginia General Assembly for \$300K per year.
- State funding covers staffing, online system, travel and some intern sponsorships.
- Worked with Mark Fischer and the National Space Grant Foundation to design a statewide, one-stop centralized, *highly searchable* online database system.
- The system accommodates both student applications and company registrations.



Ayanna Smalls, CSIIP/STF Intern, NASA

## CSIIP began 2013!









Training the Next Generation of STEM Workers





COLLEGES/UNIVERSITIES

COMPANIES

**Linking Students** to Industry

ABOUT VSGC

PARTNERS





COLLEGES/UNIVERSITIES

ABOUT VSGC CONTACT US





Keeping STEM Talent in Virginia





- VSGC state funded program supported by the Governor's Office.
- FREE service to undergraduate students and companies.
- Averages 600-1,000 undergraduate applicants including recent graduates.
- Supports ALL STEM majors (2-year, 4-year, and select high needs certificates).
- Connects Virginia companies to Virginia STEM undergraduates for paid internships.
  - Companies select and hire interns.



Jacobs, Inc. CSIIP Intern, Brandon Caudill, checking out a race car at Langley Raceway student night.





- Exiting military are encouraged to participate.
- VSGC leverages close ties with all Virginia community colleges, colleges and universities via a liaison with school.
- No Deadlines. Apply One Time. Year-round Opportunities.
- Website has videos and other useful resources.
- Free PR and Recognition of companies and students.









### Student Eligibility Requirements

- U.S. Citizen or Permanent Resident
- 18 Years of Age
- Rising Sophomore (30 credits)
- 2.7 GPA on a 4.0 Scale



- Virginia Student or Virginia Resident
- Full-time or Part-time (Minimum 6 credit hours)
   Note: Some exceptions made for exiting military







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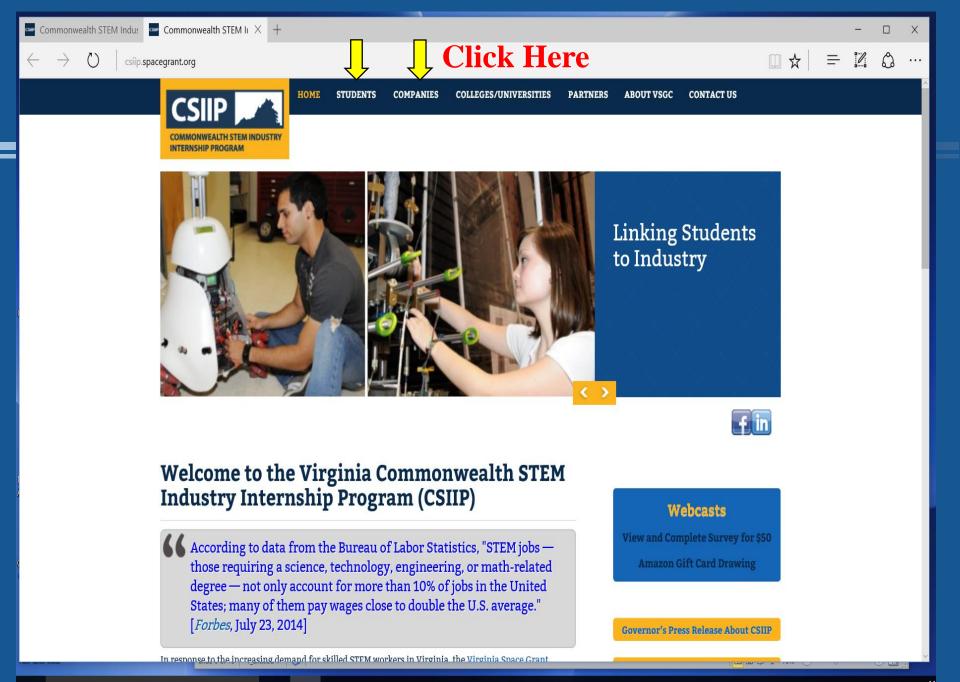
### The Application

- Resume
- Transcript
- 2 References
- Writing Sample with Self Introduction, Academic and Career Goals, and Experiences

CSIIP HOME STUDENTS COMPANIE	COLLEGES/UNIVERSITIES	PARTNERS	ABOUT VSGC	CONTACT US
COMMONWEALTH STEM INDUSTRY INTERNSHIP PROGRAM				
		_		
Commonwealth STEM Industry Internship Program New User Registration Information				
Upon submitting the information below the system will immediately email you a confirmation message along with your password. Please note that the email will be from notices@spacegrant.net. To help reduce the likelihood that messages sent to you from this system are marked as SPAM please				
add notices@spacegrant.net to your address book. If you do not receive this confirmation email within 10 minutes please check your SPAM box, check to see if you have added notices@spacegrant.net to your address book, and then follow the "Reset Password" link below.				
First Name:	·			
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Register				
View a <u>Sample</u> Application View a <u>Sample</u> Letter of Recommendation Form				
Cancel				

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csiip.spacegrant.org/companies







Industry Register/Login



#### **For Companies**

Is your company planning to hiring undergraduate interns? CSIIP is a great way to access statewide science, technology, engineering and math talent from a single online source. Interns offer a fresh perspective on the latest technologies and can provide an ongoing source of potential future employees.

- · How CSIIP Works
- Advantages for Companies
- · Company Roles and Responsibilities
- Current Participating Companies
- Student Eligibility Requirements
- Important Dates/Deadlines/Timeline

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Converight @ 2016 Commonwealth STEM Industry Internship Program ... The Commonwealth STEM Industry Internship Program is a program of the Virginia Space Grant Consortium

























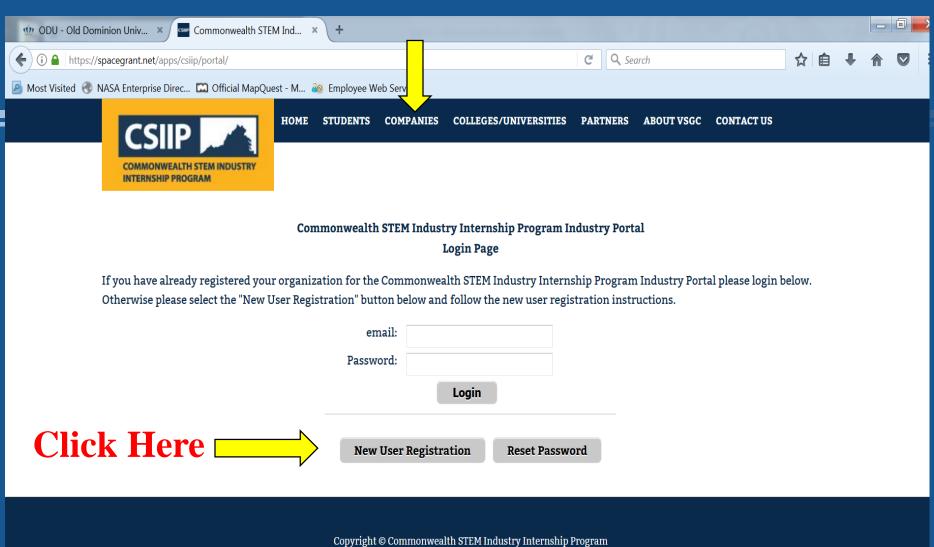












The Commonwealth STEM Industry Internship Program is a program of the Virginia Space Grant Consortium





























### New Company User Registration Information

- Name and Contact Information
- Company, Address, Website
- Federal and State Congressional Districts
- Two Points of Contact for Company
- Brief Company Overview
- Small Disadvantaged Business?
- Keywords for Opportunity
- Where you heard about CSIIP





- Staff continuously recruits new companies and STEM students.
- VSGC leverages close ties with Virginia academic community.
- Staff assistance provided in identifying students and further recruitment when necessary.
- Importance of relationship building.





### **Internship Best Practices**



### Recognition

- CSIIP Participating companies receive plaques signed by Governor.
- CSIIP Students receive certificate signed by Governor.
- Recognition of company and intern through hometown press releases for interns.
- Companies and Students included in reports to Governor and legislators
- Student's college or university notified of all placements.
- Recognize supervisors/mentors for their contributions.









New Internship Opportunities for high needs technical areas (Also open to those pursuing certifications):

- Aviation Maintenance in partnership with the Aviation Institute of Maintenance.
- *Cybersecurity* in Partnership with the Hampton Roads Cybersecurity Alliance and others.
- Mechatronics in Partnership with the Southern Virginia Higher Education Center.
- *Geospatial Technology* in partnership with NASA contractor Midland.





#### **Impacts:**

- Total Placements to date: 568
- Aviation and Aerospace Placements: 168
- Cybersecurity Placements: 155
- Current Registered Companies: 240
- Current CSIIP Partners: 22



Sentara and Jacobs managers
Sharing experience on CSIIP panel

Funded or Subsidized Projects where CSIIP is the internship avenue of choice:

- Hampton Roads Cyber Alliance 24 placements
- Virginia Cyber Alliance Subsidized Internship Project 39 placements to date
- NASA Contractor Midland GeoSpatial Project 18 placements to date



CSIIP students
hosted by Jacobs,
Inc., NASA
Contractor – L to R
Michael Kane and
Brandon Caudill



CSIIP student hosted by BASF, Antoinette Alleyne-Warren.





### **CSIIP Partners**

















































### Impact Data

- Longitudinal Tracking through next step.
- 586 Placements to date.

### Next Steps Through 2018: 242 responses (43%)

- 73 (30%) Employed in a STEM Position (2 NASA)
- 3 (1%) Employed in non-STEM Position
- o 32 (13%) Pursued or Pursuing Advanced Degree
- 133 (55%) Continuing Undergraduate Degree Program
- 1 (1%) Works in an Academic STEM Position







Jesse Pruden, previous CSIIP and STF intern hired by NASA Contractor, Jacobs, Inc., sharing words of advice to current CSIIP interns. Had he not been a part of CSIIP, he never would have landed the permanent Jacobs position.

John DePalma, previous CSIIP intern hired by Sentara Healthcare, on the CSIIP Business Symposium panel speaking about his experience. "Working with Sentara was the best experience of my scholastic life and a huge positive impact on my skill-set and knowledge base."





"Bowden said he looks at CSIIP as a continuous source of part-time workers who gain hands-on experience and become highly-qualified full-time job candidates, all of whom can put an impressive job like junior cybersecurity analyst at Sentara on their resume." Dan Bowden, Vice President and Chief Security Officer, Sentara Healthcare; Vann, J. (Inside Business, 2018, July 30) "Cyber Alliance's workshop aims to connect students with careers"



# Example of VSGC-CSIIP Partnership Virginia Cyber Alliance



- Improve economic strength of the Commonwealth making it a State of Cybersecurity Excellence (Economic Growth, Diversification and higher salary)
- Focus is on Go Virginia Region 5 (Companies must be in Region. Interns and new employees need not be Region 5 residents.)
- Two opportunities for cybersecurity, UAV and Robotics related fields available:
  - Subsidized internship (25% up to max \$2,200 Per student)
  - o Digital Entrant Program Subsidy of ½ annual salary w/\$30K max
- Provide a marketplace for cyber employers and potential employees to connect via internships
- Intern host company must register with CSIIP and provide simple MOA
- Targeting undergraduate students, exiting military, and New first year employees.



### **Internship Best Practices**



## Engineering for Success

- Written job description with tasks and required knowledge and skills.
- Ensure that planned work is meaningful to student and employer.
- Employer participation agreement.
- Program guidelines/handbook with intern expectations.
- Good partnerships with technical and human resources organizations.



### **Internship Best Practices**



### Personal Contact and Follow Up

- Staff check in with interns and supervisors early in the internship and for final evaluation and feedback.
- On/off-site programs social, sharing, professional development, bonding experiences for intern group.
- Encourage companies to provide value-added elements such as a lunch with senior management.



CSIIP –STF-NIFS Student Movie Night



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- Commonwealth STEM Industry Internships Program: <a href="https://csiip.spacegrant.org">https://csiip.spacegrant.org</a>

