

Summer Residential Governor's Schools

2024-2025 Student Application

Mathematics, Science, and Technology



SUMMER RESIDENTIAL **GOVERNOR'S SCHOOLS**

2024-2025 Application

PROGRAM AREA: Mathematics, Science, and

Engineering

Applicant Information

Arush Bodla 2026

Last Name First Name M.I. **Graduation Year**

arushbodla@gmail.com

Personal Email

Cannot be a school-issued

41784 Piney Grove Ct

email address

CONFIRM:

This personal email is monitored, including the spam/junk folder.

errors

20105

Aldie Zip

Street address City

(513) 278-7402 sheshikumar@gmail.com Parent/Guardian Phone 1 Parent/Guardian Email 1 (571) 230-0167

I have double-checked my email for

pavani.sheshi@gmail.com

(513) 278-7402

Home Phone

Parent/Guardian Phone 2 Parent/Guardian Email 2

High School Information

Public School Students

Loudoun County Public Schools John Champe High School

School Division School Name No Acronyms No Abbreviations

Irene Nettekoven irene.nettekoven@lcps.org

School Contact Name School Contact Email

703-722-2680 053-0370-

School Number

Private School Students

Region #

(entered by regional coordinator)

School Name No Abbreviations

School Contact Name School Contact Email

School Number

Recommendation Information

Applications require (2) recommendations (see Student Handbook for specific instructions). Recommendations are found on the VDOE Summer Residential Governor's Schools website. Indicate below the name and email address of those you will be requesting to submit a recommendation.

Teacher Recommendation (A)

Gerald Shapiro gerald.shapiro@lcps.org Name of Teacher Teacher's Email

Teacher or Adult Recommendation (B)

Matthew Kupeski matthew.kupeski@lcps.org Name of Teacher or Adult Teacher or Adult's Email



Resume: Activities, Research, and Honors

List accomplishments from both in-school and out-of-school activities. Highlight leadership roles (extracurricular/community groups, national organizations) and intellectual pursuits (research, presentations, competitions). Examples are provided. *As you type more text in each box, font size will automatically decrease to accommodate additional content.*

Activities and Programs

List the three most significant activities/programs you have participated in during the past three years that relate to your area of interest. Under "Year," indicate the calendar year of the training or activity.

	Activity and Organization Engineering Solutions	Position Held <i>Vice President</i>	Time Involved 4 hr/month	Year(s) 2022
1	John Champe Computer Science Club: 75+ members	President and Founder	6 hr/month	2022-Present
2	John Champe Model Rocketry Club and State VSTE panel	ARC Team Captain	4 hr/month	2022-Present
3	Academies of Loudoun Computer Science Honor Society	Vice President of Hackathon	3 hr/month	2023-Present

Research and/or Study Experiences

List the three most significant research/study experiences you have participated in during the past three years that relate to your area of interest. Include the name of any group, organization, or individual with whom you studied.

	Research or Study High Energy Particles in Space	Teacher or Mentor Melba Mouton	Organization Cardinal Community College	Year(s) 2018-19
1	United Nations Sustainable Development Goals Project: Combating Hunger	Nathanial Cool	Academies of Loudoun	2022-23
2	Chemistry Research Papers - Series of 12 across various disciplines	Andrew Allshouse	Academies of Loudoun	2023-24
3	Machine Learning Reports: Analyzing the survival factors of the Titanic Disaster: https://github.com/ArushNo1	Patrick White	Academies of Loudoun	2024

Honors and Recognitions

List the three most significant honors or recognitions you've received in the past three years related to your area of interest.

	Honor or Recognition National Honor Society	Level of Event (regional, state, national, international) National	Year(s) 2022
1	American Computer Science League Finalist	International	2024
2	Cyberpatriot Platinum Rank - 2 times	National	2023, 24
3	University of Pennsylvania PClassic: 1st place out of 51 teams	Regional (Mid-Atlantic+East Coast)	2024

PROGRAM AREA: MATHEMATICS, SCIENCE, AND TECHNOLOGY



ESSAY INSTRUCTIONS

Applicants must respond to both Essay A and Essay B. Carefully review the rubric which will be used to evaluate your submission. Consider each of the areas as you proofread and edit. When you are ready to complete your essay, follow the instructions on the following pages.

ESSAY A

Directions: Respond to the prompt below in no more than 250 words.

Prompt A:

Reflect on a significant experience, idea, or aspect of your background that has inspired your intellectual curiosity and/or personal growth, especially in relation to your chosen program area. Discuss the following:

- How has this influenced your perspective on learning and the subject?
- How do you hope to explore and develop these interests further?
- How would the Summer Governor's School support you, and what will you contribute to the community?

ESSAY B

Directions: Respond to one of the prompts below in no more than **500 words** with sources cited at the end.

PROMPT B1:

Technically called "unmanned aerial vehicles" (UAVs), drones are just aircraft without human pilots onboard, encompassing everything from military reconnaissance vehicles to unmanned crop dusters on farms. Hobbyists, entrepreneurs, and businesses are finding new ways to use drones. Still, drone technology continues to raise questions about air safety, privacy, and security. In your opinion, should drones be available to everyone or should the federal government restrict the sale and use of drones? State your position and support it with specific reasons and examples.

PROMPT B2:

Depending on their intensity, fires can benefit or harm forests. Without natural fire, dead vegetation builds up to levels high enough that eventually a fire would burn through with unnaturally high intensity that would seriously harm the forest ecosystem. Some wildlife populations often suffer substantial losses in the months following a fire due to a loss of food sources. Yet, fires help in the reproductive success of some plants, the control diseases and insects, and to recycle nutrients into the soil. Certainly, damage to property and homes is also a concern. The U.S. Forest Service spends millions of dollars trying to prevent large devastating wildfires by thinning the forests and setting smaller fires. These are called controlled or prescribed burns. But new research suggests a different solution -- just leave the forests alone. State your position and support it with specific reasons and examples.

Scoring Rubric						
Composition (0 – 4 points)	4 points	3 points	2 points	1 point		
Central Idea (Position)	Strong	Weak	Unclear	Missing		
Evidence (Details)	Precise/Relevant	Adequate	Minimal	Unclear		
Organization (Unity)	Logical/Unified	Some digressions	Many digressions	Lacking		
Word Choice	Highly Specific	Some Specificity	Limited	Lacking		
Mechanics (0 – 2 points)	2 points	1 point	0 points			
Sentence Structure	Varied	Some variety	Weak			
Usage	Consistently correct	Some incorrect	Incorrect			
Mechanics	Consistently correct	Some incorrect	Incorrect			

Max Points = 6



APPLICANT ESSAY A

- Type or paste your essay into the box below.
- The essay length should be approximately no more than 250 words.
- Font size will decrease as additional text is added
- Formatting within the essay box is limited. You may type and edit/format your essay using another application (i.e. Microsoft Word or Google Docs), then copy/paste it into the essay box below. Essay points will not be deducted for minor formatting issues.

Essay A

Applicant Name:

Arush Bodla

Naana(my dad) handed me a small box labeled "Raspberry-Pi". Inside, a small green board with tinier black chips on top. Thin, yellow and gray lines criss-crossed over the boards, intertwining with metal pieces to create an orchestrated symphony of electronics. I set up a circuit that would light up with a button, but it refused to turn on. I checked the soldering, looked at the parts, and reread the code, but it was to no avail. I grew increasingly anxious and frustrated, until I saw what was wrong: The light wasn't plugged in. That mix of frustration and accomplishment taught 5th grade me an important lesson: mistakes are valuable if you learn from them. It was then that I truly saw my potential as a programmer -- a persistent problem solver.

I'll never forget that experience with Naana where I discovered my passion for coding. It shaped who I am today, instilling resilience and critical thinking. I want to ignite the same spark I felt that fateful day to others, kindling their interest in computer science. At the Summer Governor's School, I aim to sharpen my technical skills and form connections with peers equally passionate about technology. Through this program, I hope to further my impact with the JCHS Computer Science Club and grow my startup Cognicade Studios, making computer science accessible to all. My goal is to inspire others and empower future generations with valuable technical skills using educational games: a vision made possible through the Governor's School Program.

PROGRAM AREA: Math, Science, and Technology



APPLICANT ESSAY B

- If applicable, indicate which ESSAY B PROMPT you chose.
- Type of paste your essay into the box below.
- The essay length should be approximately no more than 500 words.
- Font size will decrease as additional text is added.
- Formatting within the essay box is limited. You may type and edit/format your essay using another application (i.e. Microsoft Word or Google Docs), then copy/paste it into the essay box below. Essay points will not be deducted for minor formatting issues.

Essay B Prompt B1 Prompt B2 Prompt B3

Applicant Name: Arush Bodla

893 Billion dollars: the average cost to the United States every year from wildfires (JEC). Wildfires are uncontrolled fires that take root in forests burning trees and vegetation in their way. As climate change intensifies wildfires and makes them more common a need for prevention has become more urgent. One solution is controlled burning: setting small fires in forests to prevent larger ones. While preparing these fires can be costly the practice ultimately saves money and lives. The U.S. Forest Service should continue the practice of controlled burns because it is cost-effective and ensures measurable outcomes that enhance forest resilience and safety.

Controlled burns are beneficial because they strengthen the economy. According to the Minnesota Department of Natural Resources controlled burns remove dead vegetation on the ground and create new habitats for plants and animals to grow (MDNR). By removing dead plant material from forests controlled burns reduce the amount of available fuel for wildfires making it harder for them to ignite or spread. This saves money by reducing property damage injury and firefighting costs associated with large wildfires. Controlled burns also preserve forests which "contribute a variety of essential elements to our well-being including clean air water and soil" ("Natural Resources"). Healthy forests provide natural resources that can be harvested, such as lumber or crops and foster economic contributions from industries like farming and forestry. By preventing devastating wildfires controlled burns protect these resources allowing them to encourage long-term economic growth.

Along with economic value controlled burns are also beneficial because they are predictable and carefully planned. Before burning the Forest Service meticulously "considers temperature humidity wind moisture of the vegetation and smoke dispersal conditions" ("Prescribed Fire"). This detailed preparation ensures that the fire remains controlled and achieves specific goals such as clearing fuel or restoring ecosystems. This is far safer than risking results from an uncontrolled fire. Controlled burns can also combat internal harm. According to the National Geographic Society "Controlled burns reduce insect populations and destroy invasive plants". By reducing insect populations controlled burns prevent future outbreaks and damage to property or trees. Removing invasive plants through fire also reduces competition for native plants making it easier for them to thrive in a healthy ecosystem. Ultimately controlled burning trades unforeseen risks for planned measured outcomes making it a safe and reliable tool for forest management.

Some may argue that controlled burns should stop because they disrupt the natural cycle of forests citing that lighting unnecessary fires emit smoke and cause pollution (MFC). Prescribed burns do release smoke but their environmental impact is significantly less than the damage of wildfires which can release immense amounts of pollutants into the atmosphere over days or weeks. Additionally humanity's environmental impact has already changed many natural cycles, requiring action in order to reduce the risk of catastrophic wildfires. By preventing the far greater danger of letting uncontrolled fires damage forests controlled burns remain a necessary and effective tool for protecting forests and communities.

Works Cited

JEC. "Climate-Exacerbated Wildfires Cost the United States." United States Joint Economic Committee 16 Oct. 2023

https://www.jec.senate.gov/public/index.cfm/democrats/2023/10/climate-exacerbated-wildfires-cost-the-u-s-between-394-to-893-billion-each-year-in-economic-costs-and-damages. Accessed 19 Nov. 2024.

MDNR. "The benefits of prescribed fire on natural areas." Minnesota Department of Natural Resources 2024

https://www.dnr.state.mn.us/snap/prescribed-fire-natural-areas.html. Accessed 17 Nov. 2024.

MFC. "Prescribed Fire Challenges." Mississippi Forestry Commission https://www.mfc.ms.gov/burning-info/prescribed-burning/prescribed-fire-challenges/. Accessed 17 Nov. 2024.

USFS. "Natural Resources." USDA Forest Service https://www.fs.usda.gov/managing-land/natural-resources. Accessed 19 Nov. 2024.

USFS. "Prescribed Fire." USDA Forest Service https://www.fs.usda.gov/managing-land/prescribed-fire. Accessed 19 Nov. 2024.



Assurances and Acknowledgments

Read the following expectations and type your initials in the space provided.

l ur	nderstand that:	Applicant	Parent / Guardian
•	Leaves of absence are granted ONLY in the case of medical or family emergencies. Participants are expected to arrive by the opening ceremony and remain through the closing ceremony.	АВ	SKB
•	The programs require focus, preparation, and motivation. Emotional maturity, self-discipline and respect for myself, others, program, and school is expected.	АВ	SKB
•	I am expected to thoroughly read, understand, and follow the 2025 Student Handbook and any other instructions provided by the program director.	АВ	SKB
:	Notifications of acceptance and alternate information will be made by mid- April 2025. No information will be available before that date.	АВ	SKB
	Possession of tobacco, alcohol, weapons, or nonprescription drugs will result in the immediate dismissal and be subject to any disciplinary action that the sponsoring school division or private school chooses to invoke. Certain infractions may also result in legal consequences as outlined in the <i>Code of Virginia</i> .	АВ	SKB
•	Previous participants of any Summer Residential Governor's School program (including Governor's Foreign Language Academies) shall not apply for nor participate in the Summer Residential Governor's School program.	АВ	SKB
•	Failure to provide complete & accurate medical, mental, & prescription information may result in dismissal. A video recording is required as part of the adjudication process for VPA applicants. The video will only be viewed by Radford University and will be uploaded using Opus Event, a secure virtual auditioning platform.	АВ	SKB
•	I waive my rights to review and inspect the application and score sheet for the Summer Residential Governor's School program.	АВ	SKB

STUDENT ACKNOWLEDGEMENT:

I, Arush Bodla certify that I am a resident of Virginia and eligible for a free, public education in the Commonwealth, I am not applying for a 2025 Governor's Foreign Language Academy or for another Summer Residential Governor's School program and that these are my truthful responses to these assurances.

Type your full name: Arush Bodla Date: November 25, 2024

PARENT ACKNOWLEDGEMENT:

I, the parent/guardian of Arush Bodla permit my son/daughter, if selected, to participate in the 2025 Summer Residential Governor's School. I agree that I have been duly informed that leaves of absence from these programs are allowed only for severe cases of medical and/or family emergencies. Medical and family emergencies include major illness, hospitalization, or death of an immediate family member or guardian. Additionally, I understand that:

- transportation to/from the Governor's School and money for personal expenses must be provided by the participants.
- if selected, he/she must abide by the rules and expectations set forth for the school.
- failure or refusal to participate and abide by these rules and expectations may be just cause for immediate dismissal.

Type your full name: Sheshi Kumar Bodla November 25, 2024



SUMMARY and **REVIEW**

Review all information in the Student Handbook carefully. Consult your division or school for specific deadlines and procedure for completing and submitting your application.

Save or print a copy of your completed application for your records.

Key Points to Remember

- 1. Use a personal email address on your application, not a school-issued one.
- 2. All applicants will receive a status update email from govschool@doe.virginia.gov on April 15, 2025. If you don't receive an email by April 16th:
 - a. Check your spam folder.
 - b. Email govschool@doe.virginia.gov with your name, school division, and program area.
- 3. Monitor your inbox regularly, including spam/junk folders.
- 4. If invited to a program, use the link in your acceptance email to confirm.
 - No automatic reply will be sent confirming submission.

General Timeline

October 11, 2024: Applications available

December 4, 2024: VPA virtual adjudication window opens

January 5, 2025: VPA virtual adjudication window closes

January – February: Application Submission Deadlines (varies by division/school)

March 2025: Nominees submitted to VDOE for final selections

April 15, 2025: Status update emailed to all applicants using student's person email address

May 31, 2025: Deadline for Universities to email registration information and activity fee payment details to accepted students

Non-Discrimination Statement

VDOE does not discriminate on the basis of race, sex, color, national origin, religion, sexual orientation, gender identity, age, political affiliation or against otherwise qualified persons with disabilities. The policy permits appropriate employment preferences for veterans and specifically prohibits discrimination against veterans. The following position has been designated to handle inquiries regarding VDOE's non-discrimination policies: Director of Human Resources, Virginia Department of Education, P. O. Box 2120, Richmond, Virginia 23218-2120; Telephone: (804) 225-2021

For further information on Federal non-discrimination regulations, contact the Office for Civil Rights at <a href="https://ocen.pub.com



Summer Residential Governor's Schools

2024-2025 Application

Academic Score Sheet

Applicant's Full Name	:		Program A	rea:		
A. Resume: Activities, F	Research, and Hon	ors: Select a point valu	e for each category	/ below		
Activity/ Program	points: #1 0 #2 0 #3 0 max = 6	Research/ Study #2 Experiences #3	oints: 0 0 0 nax = 6	#1 Honors #2 #3	U	Part A Score 0.00 out of 18
B. Essay Evaluation: Se	elect the total points	given by each Reader				
Academ	nic Essay		Personal Essay			
Read Read	v 2	+	Reader 1 0 Reader 2 0		<u>. c</u>	Part B Score 0.00 out of 36
C. Recommendations:		ts from each Rating Scal				
Teacher Rating Scal out o		Adult Ratin	ng Scale B out of 24	x 0.5	2	Part C Score Out of 26
D. Assessments & Cour Test Name Date Taken	sework: List the apti	itude/achievement test	and the date admi	nistered <i>(month,</i>	year)	
Duto lakon						
Test Score	$99-90^{\circ}$ 4 points		– 80% points			< 69% 1 point
				2 points		
	4 points	s	points	2 points	s	1 point
G	rade Point Average 3.8 8 point	s	points Course Difficu	2 points Ilty* 8 points 7 points * e	Private schools should e quivalent to AP/IB, Caml	1 point
G 4.0 –	rade Point Average 3.8	s	Course Difficure Scholar	2 points Ilty* 8 points 7 points * e	S Private schools should e	1 point
G 4.0 – 3.7 –	rade Point Average 3.8	s Collegents Chests Modera	Course Difficute Scholar	2 points 8 points 7 points	Private schools should e quivalent to AP/IB, Caml	1 point evaluate courses bridge, and AYGS
G 4.0 – 3.7 – 3.4 –	4 points rade Point Average 3.8	ots Collegents Charts Modera	Course Difficure Scholar allenging te degree	2 points 1lty* 8 points 7 points 6 points	Private schools should e quivalent to AP/IB, Caml	1 point