Fall quarter/semester 2026
Application ID: **4199833**
Submitted Date: **Dec 01, 2025**
Email Address: **26poddarv@shadysideacademy.org**

About you

Personal information

First / Given name	**Vivan**
Middle name	**Neil**
Last / Family / Surname	**Poddar**
When were you born?	**November 09, 2007**
Where were you born?	**Pittsburgh, PA United States**
Attended California public school	**No**

Contact information

Home address (permanent)

Address line 1	**1713 Stevensan Drive**
City	**Sewickley**
State	**Pennsylvania**
ZIP code	**15143**
Country	**United States**

Mailing address

Address line 1	**1713 Stevensan Drive**
City	**Sewickley**
State	**Pennsylvania**
ZIP code	**15143**
Country	**United States**
Primary phone number	**4128011079**
Phone type	**Cell/Mobile**
Authorized for text messages	**Yes**
Authorized to share contact information	**Yes**

Citizenship & residency

Country of citizenship	**United States**
Social security no / ITIN	**4096**
Are you an enrolled member of an American Indian or Alaska Native tribe (U.S.)?	**No**
By the time you attend UC, will you have graduated from a California high school?	**No**
Are you currently living in California?	**No**
Is one of your parents or legal guardian a permanent resident of California?	**No**
Is your parent, legal guardian, spouse or registered domestic partner an employee of the University of California or a UC-affiliated national laboratory (Los Alamos National Security LLC or Lawrence Livermore National Security LLC)?	**No**

Demographics

None reported

Your background

What language did you learn to speak first?	**English and another language**
What was the other language?	**Bengali**
Dependent of a U.S. military veteran or service member	**No**

Your household

Who lives with you at your permanent home address?	**Two parents**
What was the total income earned for year 2025 by the parents or legal guardians listed above?	**$ 600000**
How many people were supported by this income?	**2**

Parent information

Parent 1

What is this parent's relationship to you?	**Father**
Is this parent living?	**Yes**
What is this parent's highest level of education?	**Postgraduate study**
What is this parent's current job status?	**Employed**
Current job	**Engineering**
Current job title	**Software Engineer**
Current job approx. years	**4**
Parent's address	**(Same as Applicant's Address above)**

Parent 2

What is this parent's relationship to you?	**Mother**
Is this parent living?	**Yes**
What is this parent's highest level of education?	**Postgraduate study**
What is this parent's current job status?	**Employed**
Current job	**Health Care**
Current job title	**Physician**
Current job approx. years	**3**
Parent's address	**(Same as Applicant's Address above)**

Statement of Legal Residence

Would you like to be evaluated for California residency for tuition purposes?	**No**
Reason that I do not want to be evaluated for California residency for tuition purposes.	**My permanent home is in a state other than California**
I understand that I will be classified as a nonresident for tuition purposes should I attend a UC school.	**Yes**
Special Circumstances, Nonresident Supplemental Tuition Exemptions, and Tuition Waivers	**I have no exemptions.**
I declare the statements are true and correct.	**Yes**
I understand this does not guarantee a Resident Classification for UC tuition.	**Yes**

Campuses & Majors

UC values

UC values	**Accepted**

Level

Term	**Fall 2026**
Level	**First-year**

Choose campuses

UC Berkeley
UCLA
UC San Diego

Choose majors

Campus	Major
UC Berkeley	**Mathematics, Applied, B.A.** College of Letters and Science **Alternate major** **Mathematics, B.A.** College of Letters and Science
UCLA	**Linguistics and Computer Science, B.A.** College of Letters and Science **UCLA does not offer alternate majors.**
UC San Diego	**Computer Science, B.S.** The Jacobs School of Engineering **Artificial Intelligence, B.S.** The Jacobs School of Engineering

Do you want to select and rank your top 4 UC San Diego colleges? Yes

UC San Diego college ranking

Rank	College
	Seventh College
4	**Thurgood Marshall College**
1	**Earl Warren College**
3	**Sixth College**
	Revelle College
2	**John Muir College**
	Eighth College
	Eleanor Roosevelt College

Academic History

7th & 8th grade

Courses

Subject Area	Course Name	Term Period
Algebra I	Algebra I	Full Year
Geometry	Geometry	Full Year
Algebra II	Algebra II	Full Year
Yr 1 Lang Other Than English	Spanish 1	Full Year

Has International Experience **No**

High schools

SHADY SIDE ACADEMY
PITTSBURGH, PA

School code	**393901**
Grading system	**A B C D F** **Pass/Fail**
Term system	**Full** **Semester** **Trimester**
Attended	**August 2022 - June 2026**
Grades attended	**9th grade** 2022 - 2023 (Has summer courses) **10th grade** 2023 - 2024 **11th grade** 2024 - 2025 **12th grade** 2025 - 2026
School you will graduate from:	**Yes**
Degree, diploma or certificate	**High/Secondary School Diploma**

Date received or to be received June 2026

9th grade

SHADY SIDE ACADEMY
PITTSBURGH, PA

2022 - 2023 academic year

Subject area/Course category	Course name	Hnrs	Term	GRDG System	G1	G2	G3	G4	Language name
A-World History/ Cultures/ Hist. Geography	Probs. in World History	NH	Trimester	A B C D F	A	A	A		
B-English	Lit. and Writing II	NH	Trimester	A B C D F	A	A	A		
C-Pre-Calculus	Trig. & Introductory Calculus	NH	Trimester	A B C D F	A	A	A		
D-Chemistry	Chemistry	NH	Trimester	A B C D F	A	A	A		
D-Computer Science	Computer Architecture	NH	Trimester	A B C D F	NO	NO	A		
D-Computer Science	Web Page Design	NH	Trimester	A B C D F	A	NO	NO		
E-LOTE Level 2	Spanish 2A	HL	Trimester	A B C D F	A	A	A		Spanish
F-Music	Symphonic Band	NH	Trimester	Other	P	P	P		

2022 - 2023 summer session

Subject area/Course category	Course name	Hnrs	Term	GRDG System	G1	G2	G3	G4	Language name
D-Biology / Life Sciences	CTY Johns Hopkins Biology I	NH	Full	Other	P				

10th grade

SHADY SIDE ACADEMY
PITTSBURGH, PA

2023 - 2024 academic year

Subject area/Course category	Course name	Hnrs	Term	GRDG System	G1	G2	G3	G4	Language name
A-World History/ Cultures/ Hist. Geography	Patterns of Western Identity	NH	Full	A B C D F	A				
B-English	Lit. & Writing II	NH	Full	A B C D F	A				
C-Calculus	AP Calculus BC	AP	Full	A B C D F	A				
D-Physics	Physics II (Calc.)	HL	Full	A B C D F	A				
E-LOTE Level 3	Spanish 3A	HL	Full	A B C D F	A				Spanish
G-Mathematics - Computer Science	AP Computer Science	AP	Full	A B C D F	A				
G-Mathematics	Discrete Structures	HL	Trimester	A B C D F	A	NO	NO		

11th grade

SHADY SIDE ACADEMY
PITTSBURGH, PA

2024 - 2025 academic year

Subject area/Course category	Course name	Hnrs	Term	GRDG System	G1	G2	G3	G4	Language name
A-U.S. History	U.S. History	NH	Full	A B C D F	A				
B-English	Art of Persuasion	NH	Semester	A B C D F	A	NO			
B-English	Indigenous Voices	HL	Semester	A B C D F	NO	A			

Subject area/Course category	Course name	Hnrs	Term	GRDG System	G1	G2	G3	G4	Language name
C-Other Advanced Mathematics	Differential Equations	HL	Semester	A B C D F	NO	A			
C-Other Advanced Mathematics	Linear Algebra	HL	Semester	A B C D F	A	NO			
C-Other Advanced Mathematics	Multivariable Calculus	HL	Full	A B C D F	B				
D-Chemistry	Adv. Chem: Chemical Bonding	HL	Semester	A B C D F	A	NO			
D-Chemistry	Adv. Chem: Inorganic Chem	HL	Semester	A B C D F	NO	A			
E-LOTE Level 4+	Spanish 4A	HL	Full	A B C D F	A				Spanish
G-Science - Physical Sciences	Quantum Computing	NH	Semester	Other	P	NO			

12th grade

SHADY SIDE ACADEMY
PITTSBURGH, PA

2025 - 2026 academic year

Subject area/Course category	Course name	Hnrs	Term	GRDG System	G1	G2	G3	G4	Language name
A-World History/ Cultures/ Hist. Geography	Revolution in Modern China	HL	Semester	A B C D F	NO	PL			
B-English	East Slavic Literature	HL	Semester	A B C D F	NO	PL			
B-English	The British Isles	HL	Semester	A B C D F	IP	NO			
C-Other Advanced Mathematics	Fractal Geometry/Chaos Theory	HL	Semester	A B C D F	NO	PL			
C-Other Advanced Mathematics	Set Theory	HL	Semester	A B C D F	IP	NO			
C-Statistics	Statistics	HL	Full	A B C D F	IP				
D-Chemistry	Adv. Chem: Analytical and Instrumental Analyses	HL	Semester	A B C D F	NO	PL			
D-Chemistry	Adv. Chem: Thermodynamics and Reactivity	HL	Semester	A B C D F	IP	NO			
E-LOTE Level 4+	AP Spanish	AP	Full	A B C D F	IP				Spanish

Colleges attended while in high school

None reported

College courses taken in high school

None reported

Additional information

Additional Comments

Shady Side's curriculum is challenging, analytically-based & writing-intensive with no designated honors classes. ALL courses are rigorous & college prep. AP offerings are limited to Foreign Language, Calculus, & Computer Science. Many courses, including all 11th/12th grade English, 12th grade history electives (ex: Philosophy & Economics), plus advanced sciences (Organic Chemistry, Psychology, etc.) are college level. 100% of graduates pursue a 4-year college.

Test Scores

ACT & SAT

ACT

Date taken September 2025

Subject	Score
Composite	35
English	35
Mathematics	35
Reading	35
Science	35

AP exams

Exam name	Date taken	Score	Planned date
Calculus BC	05/2024	4	
Computer Science A	05/2024	5	
Physics C: Electricity and Magnetism	05/2024	4	
Physics C: Mechanics	05/2024	4	
Spanish Language/Language and Culture			05/2026
Statistics			05/2026
U.S. History	05/2025	4	

IB exams

I have no test score information to report

English language proficiency test

I have no test score information to report

International exams

I have no test score information to report

Activities & Awards

Activities/Awards

1. Volunteer / Community service

Organization, group or program name

shady.Hacks - www.joinsilicon.org/shadyhacks

Organization, group or program description

Started Pittsburgh's first high school hackathon to supplement the lacking extracurricular opportunities in CS. Students get 8 hours to develop projects with guidance and present to judges. Serves as an entry point for beginners to explore CS.

Description of volunteer experience

Oversee finances, marketing, and outreach as Exec. Director. Secured $12K+ from 15+ sponsors and connected 350+ participants w/ internship opportunities. Supported by State Rep. Arvind Venkat as keynote speaker. Featured on SLB Radio, Pitt Post-Tribune, the Three Rivers Educational Technology Conference, and awarded State Champion in PMCD at DECA.

Grade participation

10th grade

11th grade

12th grade

Time commitment

2.0 hours per week

30.0 weeks per year

2. Work experience

Company or organization name

Doclens.ai

Company or organization description

DocLens.ai provides agentic AI workflows for insurance companies and law firms, converting unstructured data into actionable intelligence with tools for contract analysis, claims evaluation, and risk assessment.

Job title

Summer Intern

Job responsibilities

Hired through a cold email. First summer, I built a PII-anonymization system that met enterprise-level privacy requirements. I returned the next summer as a paid intern and redesigned the ClaimLens UI with React and Next.js for production deployment. My contributions resulted in co-authoring a provisional patent and US Patent 20250181617.

Grade participation and time commitment

10th grade

During summer 40.0 hours per week

11th grade

During summer 40.0 hours per week

Currently working at this job

No

Start Date: 06/2023

End Date: 08/2024

3. Volunteer / Community service

Organization, group or program name

Silicon League - www.joinsilicon.org

Organization, group or program description

Tackles the global CS education gap through a hackathon network. Offers guides and organizational support for new and existing hackathons and hosts an invite-only championship in the Spring. Registered 501(c)(3) to take tax-deductible donations.

Description of volunteer experience

Co-founded and lead as President, scaling organization to 14 member hackathons across India and the US. Responsibilities include coordinating operations, maintaining relationships with member hackathons, and coaching organizers on fundraising, marketing, etc. Successfully launched 4 hackathons, expanding CS access to 2,000+ students.

Grade participation

11th grade

12th grade

Time commitment

2.0 hours per week

30.0 weeks per year

4. Extracurricular activity

Activity name

Paradigms - www.paradigms.cc

Activity description

Built a learning platform using PDF retrieval augmented generation after witnessing peers struggle to schedule teacher meetings and cost-prohibitive tutors. The tool provides 24/7 academic support when help isn't available at school or privately. Grew to 200+ users across multiple schools seeking homework help, practice, and exam prep.

Grade participation

11th grade

12th grade

Time commitment

8.0 hours per week

30.0 weeks per year

5. Volunteer / Community service

Organization, group or program name

Ramakrishna Vedanta Ashrama of Pittsburgh

Organization, group or program description

The Ramakrishna Vedanta Ashrama in Pittsburgh is a religious institution teaching the philosophy of Vedanta, serving Pittsburgh's spiritual community. It is a major community center and hosts cultural programs, educational lectures, and gatherings.

Description of volunteer experience

Designed and implemented a digital library management system for the temple's extensive collection. Invested 300+ hours leading a team of 5 to label volumes, organize books by subject and author, and digitize records into a searchable database for an inventory of 5000+ books. Now serves almost 120 active users.

Grade participation

10th grade

11th grade

12th grade

Time commitment

8.0 hours per week

15.0 weeks per year

6. Award or honor

Name of the award or honor

1st Place, Congressional App Challenge

Level of recognition

Regional

National

Type of award

Academic

Grade level when awarded

10th grade

Award requirements

Nationwide competition for middle and high schoolers to create and submit technical projects. Each Congressional district selects a winning project. The winner presents their project at the US Capitol to government officials and professionals.

What you did to earn award

Built Quairlity, a $20 air quality sensor and intuitive AI-powered mobile app. The system tracks air quality, provides actionable advice, and identifies pollutant sources in images through an object detection model. Deployed at a temple, clinic, and homes in India to ensure clean air access. Presented to Rep. Chris Deluzio, among others.

7. Extracurricular activity

Activity name

CardioGuardian

Activity description

Developed a cost-effective and accessible preliminary screening platform to screen for sudden cardiac arrest risk in student athletes to improve sports safety. Designed algorithms to upscale smartwatch ECG to 12 leads via decomposition regression, then classified cardiac anomalies using a transformer auto-encoder system. Published in a preprint.

Grade participation

10th grade

Time commitment

4.0 hours per week

20.0 weeks per year

8. Award or honor

Name of the award or honor

Research Awards

Level of recognition

State

Regional

Type of award

Academic

Grade level when awarded

10th grade

11th grade

Award requirements

At the Pittsburgh Regional Science and Engineering Fair (PRSEF) and Pennsylvania Junior Academy of Sciences (PJAS), Participants present their original research to compete for category placements, scholarships, and special awards.

What you did to earn award

10th Grade: co-presented the CardioGuardian ML system at PRSEF, winning 3rd in CS/Math, an $8K scholarship, and the 2nd place CDC Award. Then presented Quairlity at PJAS, winning 1st in CS, and the Director's Award. 11th Grade: Presented computational quantum chemistry research at PJAS, winning a perfect score and 1st Place in CS.

9. Award or honor

Name of the award or honor

USA Computing Olympiad Gold

Level of recognition

National

International

Type of award

Academic

Grade level when awarded

10th grade

11th grade

Award requirements

Participants must advance through USACO's tiered competition system. Competitors begin at Bronze, then must score sufficiently high (typically 750/1000 points) in division contests to promote to higher divisions. Preparation is highly rigorous.

What you did to earn award

Advanced to Silver in December 2024, advanced to Gold in March 2025 (Top 5%). Maintained a rigorous practice schedule with problems on USACO.guide, CodeForces, CSES, and LeetCode. Studied algorithmic techniques in sorting, searching, and greedy algorithms. Mastered data structures like graphs, sets, and queues/stacks.

10. Extracurricular activity

Activity name

Shady Side Academy Science Olympiad

Activity description

Served as team lead for physics and CS test events, engaged in weekly competition preparation sessions, and competed at regional, state, and national tournaments. Coached newcomer event partners on problem-solving techniques and competition strategies for relevant events. Invited to write exams for Division B invitationals nationwide.

Grade participation

9th grade

10th grade

11th grade

Time commitment

4.0 hours per week

20.0 weeks per year

11. Award or honor

Name of the award or honor

Science Olympiad Awards

Level of recognition

State

Regional

National

Type of award

Academic

Grade level when awarded

9th grade

10th grade

11th grade

Award requirements

Students compete on 15-member school teams in 23 events spanning biology, chemistry, physics, earth science, and engineering. Regional champions progress to state; top 2 state finishers qualify for Nationals, consisting of 120 qualifying teams.

What you did to earn award

Competed at invitational tournaments in Pennsylvania, Ohio, New York, Kansas, California, and Michigan, winning 60+ total regional, state, and invitational medals, with 3 Top 15 placements at Nationals. Meaningfully contributed to the team for a top 10 national placement in 2023.

12. Extracurricular activity

Activity name

Electronic Design Automation @ University of Utah MEDAL Lab

Activity description

Selected as an intern at Utah ECE through a competitive application process. Developed multi-objective reinforcement learning algorithms to advance AutoCkt framework for automated analog circuit design, working under graduate researcher Osei Brempong and Prof. Morteza Fayazi. Currently co-authoring research paper with team for publication.

Grade participation

12th grade

Time commitment

40.0 hours per week

9.0 weeks per year

13. Extracurricular activity

Activity name

PC Building Business

Activity description

Built low-cost custom PCs for customers and friends since 6th grade. Tested various configurations on PCPartPicker, sourced parts, and assembled 18 total computers. Marketed services through Facebook Marketplace and eBay, earning over $1000 in profit while gaining valuable experience in hardware, customer service, and entrepreneurship.

Grade participation

9th grade

Time commitment

3.0 hours per week

30.0 weeks per year

14. Extracurricular activity

Activity name

Tennis

Activity description

Playing competitively since age 8. Competed in USTA tournaments through 9th grade, achieving career-high state ranking of 27th, and invited to the USTA Western PA Sectional Training Center. Currently a four-year varsity team member at Shady Side, contributing to section championship or runner-up finishes all four years.

Grade participation

9th grade

10th grade

11th grade

12th grade

Time commitment

3.0 hours per week

30.0 weeks per year

15. Extracurricular activity

Activity name

Piano

Activity description

Playing piano since age 5, recognized as a Young Artist of the Western Pennsylvania Steinway Society, and performed at Carnegie Hall and Mozarthaus Vienna through competition wins at the Pittsburgh International Piano Competition and Pittsburgh Piano Teachers Association competitions.

Grade participation

9th grade

10th grade

Time commitment

4.0 hours per week

30.0 weeks per year

16. Extracurricular activity

Activity name

Autonomous Driving Research

Activity description

Designed and tested autonomous driving models in CARLA simulation using deep reinforcement learning with LiDAR and RADAR sensor fusion. Developed path planning algorithms and collision avoidance systems, evaluating vehicle safety and decision-making under a variety of situations.

Grade participation

9th grade

Time commitment

3.0 hours per week

20.0 weeks per year

17. Extracurricular activity

Activity name

Shady Side Academy CS Department Associate

Activity description

Redesigned CS department website, aided curriculum development and department-sponsored tutoring services, attended faculty meetings, and founded Competitive Programming club; now managed by underclassmen.

Grade participation

10th grade

11th grade

12th grade

Time commitment

1.0 hours per week

20.0 weeks per year

18. Award or honor

Name of the award or honor

National Merit Semifinalist

Level of recognition

National

Type of award

Academic

Grade level when awarded

12th grade

Award requirements

The PSAT/NMSQT is administered in the third year of high school. The top 1% of scorers in each state are recognized as National Merit Semifinalists.

What you did to earn award

Prepared for and took the PSAT/NMSQT during junior year, scoring a 1490 and scoring in the >99th percentile of test-takers in Pennsylvania.

Work earnings

How have you used or will you use your earnings?

I've used my earnings to start an investment portfolio. Occasionally, I withdraw money to fund my personal projects and endeavors.

Scholarships & support programs

Scholarships

Academic major or interest

- Education
- Engineering
- Mathematics, biological or physical sciences

Career plans

- Business
- Education
- Information technology

Extracurricular activities & work experience

- Extensive community service involvement or volunteer experience
- Involvement in athletics
- Participates in extracurricular activities
- Student who has demonstrated academic excellence as well as leadership in extracurricular activities
- Student who is not now and does not plan to become a member of a social fraternity or sorority, other than an honor society
- Students who plan to participate in an entrepreneurial group on campus
- Will work while in college

Support programs

None selected.

Personal Insight

Personal insight questions

Describe an example of your leadership experience in which you have positively influenced others, helped resolve disputes, or contributed to group efforts over time.

The library was a mess, and how to fix it was daunting. The 2000 books on religion, spirituality, and history on the Ashram shelves were dusty and unorganized. Another 3000 were scattered around the room in piles. I'd volunteered to organize everything before I knew how impossible it would be.

I started by sorting and labeling each book by category and language on an Excel spreadsheet with formulas. After three weeks, I'd only labeled 100 books. I realized that I had to go digital. Using my skills in React and SQL, I built an online catalog that would generate labels, which I then printed and slapped onto the books. I quickly realized that it would take years to complete the project without help. I tried to recruit other Ashram members, but everyone I spoke to had a

response along the lines of: "That library may as well be a storage room. Organizing those books will take years." Even pleading wouldn't help. The books had been neglected for so long, no one believed they could be saved.

I changed my strategy. Instead, I focused on making visible progress. Armed with my new online cataloguing system, every Saturday, I'd add 50 books by myself. As more and more books appeared, Ashram members began to see progress. Finally, around that time, another high school student volunteered to help. Soon, I had a team of five volunteers, and we met every Saturday from morning to evening, reading and cataloguing. Eventually, we were doing 300 books a week.

Finishing the project was fulfilling, but the true reward came when members of the Ashram filled the library, excited to find their favorite books. The thrill of seeing the library being used again taught me that leadership isn't about having all the answers or being the best of the best. It's about taking the initiative when the odds are against you, proving through action that change is possible, and inspiring others to believe they can make a difference too. The hardest part is often taking the first step.

What would you say is your greatest talent or skill? How have you developed and demonstrated that talent over time?

I'm a technologist and a history geek. My greatest skill is my ability to think critically and ethically about technology, drawing on the lessons of history and ethics, my appreciation for the field, and my ambition to drive its future.

I've developed this skill through the ways I spend my free time. After school, you can find me coding away on CodeForces and tackling USACO problems. Late at night, I'll read about IBM's role in making punch card computers for the Nazis or AT&T's collaboration with the NSA for mass surveillance.

These ethical dilemmas in technology repeat across history. When I read about redlining, maps that marked Black neighborhoods as "unsafe for investment," I see connections to modern automated risk assessment tools used by insurance companies. This historical perspective informs the technology I see myself building. Especially in AI and ML projects, I ask myself: "Is this dataset reliable? Is there any bias? Will the benefits be felt equally?"

Through tech enthusiasts I know and tech communities I've joined, I've learned there are two kinds of people drawn to the field, pure techies and those who consider the human context in technology. My thirst for knowledge has turned me into a member of the latter. I love technology as much as the others, but I am also a student of history, current events, ethics, and how these areas can and should inform the development of technology.

The best project I've seen in three years of organizing hackathons did not win. It was undoubtedly impressive: a screening bot that promised to review job applications impartially, trained on past hires. When a judge asked, "If the previous hires in the dataset favored men, wouldn't the algorithm learn to prefer these candidates?" The creators stayed silent. This moment captures the ethical dilemma of AI. Previous technologies amplified human effort, but nowadays, AI amplifies human prejudices from the human data used for training.

My greatest skill has taught me that considering ethical dilemmas shouldn't distract from the technicals. Rather, ethics are essential; the most dangerous technologists innovate without considering the consequences.

Think about an academic subject that inspires you. Describe how you have furthered this interest inside and/or outside of the classroom.

My ambitions are to work using computation on products and services geared to consumers rather than industry. Ordinary people need complex technology to function and thrive. I want to bridge complex technology to the people who use it, specifically to students and educators.

My interest in this field began when I was frustrated with the lack of CS opportunities for students at my school. I noticed that while competitions such as DECA, FBLA, and debate get students involved in business, management, and public speaking, students interested in CS have only competitive programming or research. I started shady.Hacks, the first highschool hackathon in the city of Pittsburgh, which offers an alternative where competitors can build real projects, connect with startups, and compete for internship opportunities where they can explore potential careers.

Organizing shady.Hacks taught me as much about CS education as it did about event planning. I cold-emailed dozens of companies for sponsorships, coordinated with my school, recruited judges from local tech companies and universities, and managed a team of student volunteers. Once we reached 200 participants and over $7,000 in funding, I realized that these problems weren't limited to my community. Students everywhere faced the same gap between their STEM interests and opportunities to explore them.

I started the Silicon League, a global community and incubator for student-led hackathons. We created a network of 14 hackathons around the US and India that are united under the same mission: making STEM opportunities more accessible for highschoolers.

At the same time, I wondered how CS could be used to improve education. While interviewing students about their problems faced in school, I realized that many issues in education can be solved with the integration of technology. This brought me to develop Paradigms, a RAG-powered learning tool that supports students when they need it most.

Through shady.Hacks, the Silicon League, and Paradigms, I've realized that there lies a myriad of opportunities to improve the ways students fundamentally learn using technology. As I look ahead, I'm excited to begin innovating at the intersection of education, technology, and entrepreneurship.

What have you done to make your school or your community a better place?

It had been three years since we had last seen him. My parents, little sister, and I were visiting, and my grandfather, or Dadu, seemed much older and frailer. Spending time in his Howrah apartment, I realized the difficulty of living alone in old age and maintaining a clean space, which contributed to his breathing problems.

When we returned to Pittsburgh, I couldn't stop thinking of him. As a tinkerer, I build gaming computers, make mods for games, and flashcard apps to help with

my homework. One afternoon, I wondered how I could use my abilities to help him. In the following weeks, I began building an app and a sensor that Dadu could use with his phone. Learning from YouTube tutorials, I worked with Arduino boards, ML, and React to produce a chatbot, an indoor air quality sensor, and an object detection algorithm. It would mark mold, clutter, and measure dangerous gases like carbon monoxide.

Two months later, the sensor finally synced to the app. I immediately phoned Dadu on WhatsApp and demoed the app. His face beamed on the screen, eyes widening as I showed him how the sensor monitors air quality, how it could alert him to hidden dangers. He told me, "You're far away, but it's like you're here." Next summer, we visited him again, and I installed the system in his apartment. As a bonus, I got to tell him the app I'd made for him had won me an award. But seeing him use the app was more rewarding than the trophy itself.

The experience inspired me to shift my focus from myself to others. I've installed the app and its $20 sensor in my mother's workplace and in a local temple. Now, every project I start begins with two questions: who can benefit from this? Who can access this? I no longer learn skills for convenience but for contribution.

My beloved grandfather doesn't need his inhalers as much, and his breathing is better. Whenever we talk, I tell him all about my new projects and that I, too, am breathing differently myself.

Additional comments

None reported

Verified information

Academic review

Sign & release

Release authorizations

I authorize the University of California to release application information, including copies of my application, to outside agencies that award scholarships.

I authorize the University of California to release biographical information from my application (including information regarding my ethnicity and sexual orientation) to recognized UC organizations and alumni groups that may wish to contact me before and after admission decisions are made.

I authorize the University of California to release to my school or college counselor/counseling office (or sponsoring agency) information regarding my application, including transcripts and other supporting documents, as they relate to my admission and scholarship status.

I authorize the University of California to release to my parents/legal guardian or spouse information regarding my application, including transcripts and other supporting documents, as they relate to my admission and scholarship status.

Electronic signature and Statement of Integrity

I certify that my application and all information submitted during the admission process — including my academic record, personal statement, awards, activities, and supporting materials — are my own work, factually true and correct, and honestly presented. I understand that I am responsible for the accuracy of the application and that the University of California may verify the information.

I further understand that withholding information or giving false information or other misconduct prior to enrollment as described in the UC Policy on Student Conduct and Discipline (http://policy.ucop.edu/doc/2710530/PACAOS-100) may be cause for denial of admission, withdrawal of an admission offer, registration cancellation, expulsion, or revocation of a University of California degree.

Electronic signature provided on: Dec 01, 2025